

The School of Recreation.



Printed for A. Bettsworth at the Red-Lyon in Paternoster Row.

THE
SCHOOL
OF
Recreation :
OR, A
GUIDE

To the
Most Ingenious Exercises
OF

Hunting,
Riding,
Racing,
Fireworks,
Military Dis-
cipline,
The Science
of Defence.

Hawking,
Cennis,
Bowling,
Kinging,
Singing,
Cock-fighting.
Fowling,
Angling.

By R. H.

LONDON: Printed for A. Betteſworth,
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THE
PREFACE
TO THE
READER.

READER,

IN this small Book you will find such Variety of Recreations, that nothing of the Nature ever appear'd so like Accomplish'd in any one Volume, of what Largeness soever: For, besides my own Experience in these acceptable and delightful Particulars, reduced under proper Heads, easy to be understood, and put in Practice, I have taken the Opinions of those whose Ingenuity hath led them to these Exercises, in Particular or General; and are approved for the Performance of them in the exactest manner, whose judicious Approbations the more embolden'd me to a Publication of them: In which you will not only find Pleasure, and keep up a Healthful Constitution in moderately pursuing them, but in most or all of them, find considerable Profit and Advantage, when you can spare

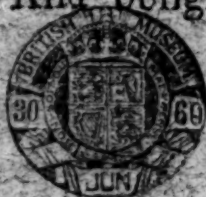
To the Reader.

leisure Hours from your Devotions, or to unbend your Cares after the tiresome Drudgery of weighty Temporal Matters; Not that I think it is proper so eagerly to pursue them, as if you made them rather a Business than a Recreation; for though in themselves they are harmless, yet a continual or insatiate Prosecution of any Thing, not only lessens the Pleasure, but may render it hurtful, if not to your self, yet in giving Offence to others, who will be apt to reflect upon such as seem to doat upon them, and wholly neglect their other Affairs.

We find the Taste of Honey is delicious and desirable, yet Nature over-burthen'd with too great a Quantity, surfeits, and begets a loathing of it. Wherefore, to conclude, I commend them as they are, viz. Suitable Recreations for the Gentry of England, and others wherein to please and delight themselves. And so not doubting this Work will be ~~accepted~~, as it was ~~well~~ meant to serve my Country Men, I take leave to subscribe my self, Kind Reader,

Your most humble

And obliging Servant,



R. H.

OF
HUNTING.

HUNTING, being a Recreation that challenges the sublime Epithets of Royal, Artificial, Manly, and War-like, for its Stateliness, Cunning, and Indurance, claims above all other Sports the Precedency; and therefore I was induced to place it at the Head to usher in the rest.

But to come to the Purpose: The young Hunter, as yet raw in the true Knowledge of this Royal Sport, with what is merely necessary and useful, without amusing him with superfluous Observations for his Instruction: I ~~will~~ therefore observe throughout this Treatise this Method: 1. The several Chases or Games which fall under the first Denomination, Hunting. 2. The genuine of Infallible Rules, whereby we are to direct our selves, for the obtaining the true Pleasure in prosecuting the same, and the desired Effects of it.

Know then; the Beasts of Venery or Forest, are, viz. The Hart, Hind, Hare.

As likewise the Wild Beasts, or Beasts of Chace, are, viz. the Buck, Doe, Fox, Marten, Rot.

The Beasts of Warren, are, viz. Hares, Conies, Roos.

Note, The Hart and Hind before spoken of, though they are of one kind, yet, because their Seasons are several, are esteem'd distinct Beasts; and in the Hart is included the Stag, and all red Deer of Antler.

And because I reckon it the most necessary Part of the Hunter to understand the Names, Degrees,

Of Hunting.

Ages and Seasons of the aforesaid different Beasts of Forest or Venery, Chase and Warren, I therefore present him with these following

Beasts of Forests, &c.

The *Hart* the first Year is called a *Hind Calf*, 2 a *Knabber*, 3 a *Brock*, 4 a *Staggard*, 5 a *Stag*, 6 a *Hart*.
The *Hind* the first Year a *Calf*, 2 a *Hearse*, 3 a *Hind*.

The *Hare* the first Year a *Leveret*, 2 a *Hare*, 3 a *great Hare*.

Beasts of Chase.

The *Buck* the first Year is called a *Fawn*, 2 a *Pricket*, 3 a *Serrel*, 4 a *Sore*, 5 a *Buck* of the first Head, 6 a *great Buck*.

The *Doe* the first Year a *Fawn*, 2 a *Tig*, 3 a *Doe*.

The *Fox* the first Year a *Cub*, 2 a *Fox*.

The *Marten* the first Year a *Cub*, 2 a *Marten*.

The *Roe* the first Year a *Kid*, 2 a *Gyr*, 3 a *Hemuse*, 4 a *Roe-Buck* of the first Head, 5 a *fair Roe-Buck*.

As for the Beasts of Warren, the *Hare* being spoken of before, little or nothing is to be said.

The *Coney* is first a *Rabbit*, and then an *Old Coney*.

Thus much for their Names, Degrees, and Ages :
Now let us next observe their proper Seasons for Hunting.

The *Hare* or *Buck* beginneth Fifteen Days after *Midsummer-Day*, and lasteth 'till *Holy-Rood-Day*.

The *Fox* from *Chriffmas*, and lasteth 'till the *Annunciation* of the Blessed *Virgin Mary*.

The *Hind* or *Roe*, from *Holy-Rood-Day* 'till *Candlemas*.

The *Roe-Buck* from *Easter* 'till *Michaelmas*.

The *Roe* from *Michaelmas* 'till *Candlemas*.

The *Hare* from *Michaelmas* to the End of *February*.

Thus much I thought fit to speak briefly of the proper Names, Degrees, and Seasons of the several



Of Hunting.

several Chases which we Hunt : But having almost
so got some, I shall insert here, as intending to speak
somewhat of them, and they are the *Badger*, *Oxer*,
and the *Wild-Goat*.

As for the Terms of Art appropriated to Hunting.
And now I bring you to the second Thing I propo-
sed, viz. the Rules and Measures we are to learn
and observe in the fore-mention'd Sports or Chases,
and in this we must begin with the Pursuers or Con-
querors of these Chases ; namely,

Of Hounds.

There are several kind of Hounds, endued with
Qualities suitable to the Country where they are
bred ; and therefore consult his Country, and you
will soon understand his Nature and Use : As for
Instance, the Western Countries of *England*, and
Wood-land, *Mountainous Countries*, as also *Cheshire*
and *Lancashire*, breed the *Slow-Hound* ; a large great
Dog, tall and heavy. *Worcestershire*, *Bedfordshire*, and
many other well mixt Soils, where the *Champaign*
and *Covert* are equally large, produce the *middle-
sized Dog*, of a more nimble Composure than the
fore-mention'd, and fitter for Chase. *Yorkshire*, *Cum-
berland*, *Northumberland*, and the North Parts, breed
the light, nimble, swift, slender Dog. And our open
Champaigns train up excellent *Grey-hounds*, huge-
ly admired for his *Swiftness*, *Strength*, and *Saga-
city*. And lastly, the little *Beagle*, bred in all Coun-
tries, is of exceeding *Cunning*, and curious Scent in
Hunting.

For the Choice of Hounds we are to rely much
on their Colours ; and accordingly make our *Electi-
on*. The best and most beautiful of all for a gene-
ral Kennel, is the *White-Hound*, with black Ears,
and a black Spot at the setting on of the Tail, and
is ever found to be both of good Scent and of good
Condition,

Of Hunting.

Condition, and will Hunt any Chase, but especially the *Hare, Stag, Buck, Roe, or Otter*, not sticking at Woods or Waters. The next is the Black, the black tann'd, or all Liver-hew'd, or the Milk-white *Hound*, which is the true *Talbot*, is best for the String or Fine, as delighting in Blood; the largest is the comeliest and best. The *Grizled*, usually shag-hair'd, are the best Verminers, and so fittest for the *Fox, Badger*, or other hot Scents; a Couple of which let not your Kennel be without, as being exceeding good cunning Finders.

For the Shape of your Hound, you must consult the Climate of his Breed, and the natural Composition of his Body; but by these following Characters you may know a good Hound. If you like a large, heavy, true *Talbot* like Hound, see

His Head be round and thick. Nose short and uprising. Nostrils wide and large. Ears large and down-hanging. Upper-lip-flews lower than his Nether Chaps. Back strong and rising. Fillets thick and great. Thighs and Huckle-bones round. Hams strait. Tail long and rush grown. The Hair of his Belly hard and stiff. Legs big and lean. Foot like a *Rox's*, well claw'd and round. Sole dry and hard. All these shew an able Hound.

If you would chuse a swift, light Hound, the *Dartshire* one in the generality will please you, for (as these have) he ought to have a slender Head, longer Nose, shallower Ears and Flews, broad Back, gaunt Belly, small Tail, long Joynts, round Foot; and in fine, of a Grey-hound-like make.

Thus much to direct the Choice of Hounds; now something ought to be spoken of the Composition of Kennels, wherein I must appeal to the Affection of the Gentleman, the Lover of this Sport, and let him tell me the Reasons that induced him to take Pleasure in Hounds, whether it be he loves Cunning in Hunting? Or Sweetness, Loud-

ness,

ness, or Deepness of Cry? Or for the Training his Horses? Or for the Exercise of his Body only.

If for Cunning Hunting; breed your Dogs from the slowest and largest of the fore-mention'd Northern Hounds, and the swiftest and slenderest of the West Country, of both Kinds, approved to be not given to lie off, or look for Advantages; but staunch fair, even running, and of perfect fine Scent. These will make a Horse gallop fast, and not run; being middle siz'd, not too swift as to out-run, or too slow as to lose the Scent; are the best for the true Art and Use of Hunting.

If for Sweetness of Cry; compound your Kennel of some large Dogs, of deep solemn Mouths, and swift in spending, as the *Base* in the Consort; then twice so many roaring, loud, ringing Mouths, as the *Counter Tenor*: And lastly, some hollow, plain, sweet Mouths, as the *Mean*: So shall your Cry be perfect. Observe that this Composition be of the swiftest and largest deep Mouth'd Dog, the slowest and middle-siz'd, and the shortest Legged slender Dog. For these run even together.

If for Loudness of Mouth, chuse the Loud Clanging (redoubling as it were) Mouth, and to this put the roaring, spending, and whining Mouth, which will be loud, smart, and pleasant: Such are for the most part your *Shropshire* and *Worcestershire* Dogs.

If (lastly) for Deepness of Cry, the largest Dogs, having the greatest Mouths, and deepest Flews, are the best; such are your West Country, *Cheshire* and *Lancashire* Dogs.

But if you have your Kennel for Training Horses only; then compound your Kennel of the lightest, nimblest, and swiftest Dogs, such as your Northern Hounds are: For the strong and violent Exercises of their Horses, through the Natural Velocity of their Hounds in the North Parts, have render'd them famous.

Of Hunting.

Amour for Truth and Swiftneſs above all other Parts of England.

Laſtly, If for the Maintenance of your Health, by preventing Infirmities and Groſſneſs of Humours, you compoſe your Kennel; conſult firſt your own Ability for this Exerciſe; and if you think you are not able to foot it away, then the biggeſt and ſloweſt Dogs you can get are beſt. But if you would pad it away through an Unability of footing it, then chuſe the ſloweſt or middle ſiz'd Hounds, of good Mouths and Noſes, for loud Cry and ready Spent.

Thus far for the Compoſing a Kennel; I come now to the *Kennel it ſelf*, of which I need ſay little, as indeed unneneſſary, leaving that to the Diſcretion of the *Hunſman*; only I would have him obſerve, that it be built ſome pretty Way diſtant from the Dwelling-Houſe, in a warm dry Place, free from Vermin, and near ſome Pond or River of freſh Water; and ſo placed, that the Morning Sun may ſhine upon it. Be ſure to keep it clean, and let them not want freſh Scraw every Day. Feed them early in the Morning at Sun-riſing, and at Sun ſet in the Evening. As for the Meat, I leave to the ingenious *Hunſman* to get when they come from Hunting; after you have fed them well, let them to their Kennel, and waſh their Feet with Beer and Butter, or ſome ſuch Thing and pick and ſearch their Cleys, for Thorns, Stubbs, or the like: If it is in *Winter*, let a Fire be made, and let them beak and ſtretch themſelves for an Hour or ſo at the Fire, and ſuffer them to lick, pick, and trim themſelves; hereby to prevent the Diſeaſes incident to them, upon ſudden Cooling, as the *Mange, Itch, Fevers, &c.*

But before I treat of the keeping your Hounds in Health by curing their Diſeaſes, I muſt ſpeak a Word or two of the Way to *Breed good Whelps*, viz. Having a Hound and a Bratch of that general Goodneſs, in Size, Voice, Speed, Scent, and Proportion

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you like, put them together to ingender in *January*, *February*, or *March*, as the properest Months for Hounds, Bitches, and Bratches to be Limed in; because of not *losing Time* to enter them. When you put them together observe, as near as you can, if the *Moon* be in *Aquarius* or *Gemini*; because the Whelps will then never run mad, and the Litter will be double as many Dogs as Bitch-Whelps. When your Bitch is near her *Whelping*, separate her from the other Hounds, and make her a Kennel particular by her self; and see her Kennel'd every Night, that she might be acquainted and delighted with it, and so not seek out unwholsome Places; for if you remove the Whelps after they are Whelp'd, the Bitch will carry them up and down 'till she come to their first Place of Littering; and that's very dangerous. Suffer not your Whelps to Suck above Two Months, and then *Wean* them.

When your Whelps are brought up, *enter* them not in Hunting 'till they are at least a Year and half old: That is, if Whelp'd in *March*, enter them *September* come Twelve Month; if in *April*, in *October* come Twelve Months after, &c.

When you would *enter* them, bring them abroad with the most Staunch and best Hunting Hounds; (all babling and flying Curs being left at home) and a *Hare* being the best *Entering Chase*, get a *Hare* ready before, and putting her from her Form, view which way she takes, and then lay on your Hounds, giving them all the Advantage may be; and if she is caught, do not suffer them to break her, but immediately taking her, strip off her Skin, and cutting her to Pieces, give every part to your young Whelps; and that will beget in them a Delight in Hunting.

Diseases incident to Dogs, and their Cures.

For Sick Dogs. Take Sheeps-heads, Wool and all, hack and bruise them into Pieces, make Pottage of it with

with *Oatmeal* and *Penny-royal*, and give it warm *Water*,
Lice and Flees. Boil four or five Handfuls of *Rue*,
 or *Herb of Grace*, in a Gallon of running *Water*, 'till
 a Pottle be consumed, strain it, and put two Ounces
 of *Staves-acre* powdered, and bathe them with it
 warm.

Itch. Take Oil of *Flower-de-lys*, Powder of *Brim-
 stone*, and dry'd *Elicampane* Roots, of each a like
 Quantity, and *Bay-Salt* powdered; mix these Pow-
 ders with the Oil, and warm it, anoint, scratch, and
 make it bleed, it will do well.

Tetter. Take *Black-Ink*, Juice of *Mint* and *Vinegar*,
 of each alike, mix them altogether with Powder of
Brimstone to a Salve, and anoint it.

Worms. Give your Hound *Brimstone* and new *Milk*,
 it will kill them.

Gauling. *May-Butter*, *Yellow-Wax*, and unslack'd
Lime, made to a Salve, and anoint therewith, is a
 present Remedy.

Mange. Take two Handfuls of *Wild-Cresses*, of *Eli-
 campane*, of the Leaves and Roots of *Roebr* and *Sor-
 rel*, the like Quantity, and two Pounds of the Roots
 of *Frodels*, boil them all well in *Lye* and *Vinegars*
 strain it, and put therein two Pound of *Grey Soap*,
 and after 'tis melted, rub your Hound with it four
 or five Days together.

For an Ear Disease. Mix *Verjuice* and *Chervile*
Water together, and drop into his Ears a Spoonful
 or two, Morning and Evening.

Sore Eyes. Chew a Leaf or two of *Ground-Ivy*,
 and spit the Juice into his Eyes.

Surberling. Wash his Feet with *Beer* and *Butter*,
 and bind young red *Nettles*, beaten to a Salve, to his
 Soles.

Biting by Snake, Adder, &c. Beat the Herb *Calam-
 minch* with *Turpentine* and yellow *Wax* to a Salve,
 and apply it. To expel the inward Poison, give the
 said Herb in *Milk*.

Biting

Biting by a Mad Dog. Wash the Place with Sea-Water, or strong Brine, will cure him. The Quantity of a Hazle-Nut of Mithridate, dissolved in sweet Wine, will prevent inward Infection.

Madness. Lastly, if your Hound be Mad, which you will soon find by his separating himself from the rest, throwing his Head into the Wind, foaming and flavering at Mouth, snatching at every Thing he meets, red fiery Eyes, stinking filthy Breath; then to knock him on the Head is a present Remedy, and you'll prevent infinite Dangers.

And now I proceed to give some brief Instructions for Hunting the several Chases, viz. the Time when, and the Manner how.

Having your Kennel of Hounds in good Order and Plight, lead them forth, and to your Game; only take this Caution, Do not forget to have in your Pack a Couple of Hounds called *Hunters in the High ways*, that will Scent upon hard Ground, where he cannot perceive Pricks or Impressions; and let a Couple of *Old stench Hounds* accompany you, by whose sure Scent the too great Swiftnesse of the young and unexperienced One may be restrained and regulated.

Of Hart or Stag Hunting.

To understand the Age of this our Game, it is known by several Marks, amongst which this is the most Authentick: That if you take his View in the Ground, and perceive he has a large Foot, a thick Heel, a deep Print, open Cleft, and long Space, then be assured he is old, as the contrary concludes him young.

To find him, examine the following Annual, or Monthly,

November, in Heaths among Furrs, Shrubs, and Whins.

December

December in For-ests among thick and strong Woods.

January in Corners of the Forests, Corn-Fields, Wheat, Rye, &c.

February and *March* amongst young and thick Bulhes.

April and *May* in Coppices and Springs.

June and *July* in Out-Woods and Purlieus, nearest the Corn-Field.

September and *October* after the first Showers of Rain, they leave their Thickets, and go to Rut, during which Time there is no certain Place to find them in.

When you have found him in any of these Places, be careful to go up the Wind; and the best time to find him is before *Sun-rising*, when he goes to feed; then watch him to his Leir, and having lodged him, go and prepare; if he is not forced he will not budge 'till Evening. Approaching his Lodging, cast off your *Finders*, who having Hunted him a Ring or two, cast in the rest; and being in full Cry and main Chase, comfort and cheer them with Horn and Voice. Be sure to take Notice of him by some Mark, and if your Dogs make Default, rate them off, and bring them to the Default back, and make them cast about 'till they have undertaken the first *Deer*; then cheer them to the utmost, and so continue 'till they have either set up or slain him. It is the Nature of a Stag to seek for one of his kind, when he is imboist or weary, and beating him up, lie down in his Place; therefore have a watchful Eye unto *Change*. As likewise by taking Soil (i. e. Water) he will swim a River just in the Middle, down the Stream, covering himself all over but his Nose, keeping the Middle, least by touching any Boughs, he leave a Scent for the Hounds; and by his Crossings and Doublings, he will endeavour to baffle his Pursuers: In these Cases, have regard to your *old Hounds*, as I said before. When he is imboist or weary,

Of Hunting.

weary, may be known thus: By his creeping into Holes, and often lying down; or by his running stiff, high, and lumbering, flavering and foaming at the Mouth, shining and blackness of Hair, and much Sweat; and thus much for *Stag* or *Hart-Hunting*. As for the *Buck*, I shall not speak any thing, for he that can Hunt a *Stag* well, cannot fail Hunting a *Buck* well. As likewise for the *Red-Hunting*, I refer you to what is spoken of the *Hart* or *Stag*.

Of Hare-Hunting.

As for the *Time*, the most proper to begin this Game, *note*: That about the Middle of *September* is best, and to end towards the latter end of *February*, when surcease, and destroy not the young early Brood of *Leverets*: And this Season is most agreeable likewise, to the Nature of *Hounds*, moist and cool. Now for the Place where to find her, you must examine and observe the Seasons of the Year; for in Summer or Spring-time, you shall find them in Corn-Fields and open Places, not sitting in Bushes, for fear of Snakes, Adders, &c. In Winter they love Tufts of Thorns and Brambles, near Houses: In these Places you must regard the *Oldness* or *Newness* of her *Form* or *Seat*, to prevent Labour in Vain: If it be plain and smooth within, and the Pad before it flat and worn, and the Prickles so new and perceptible, that the Earth seems black and fresh broken, then assure your self the *Form* is new, and from thence you may Hunt, and recover the *Hare*; if the contrary, it is old, and if your *Hounds* call upon it, rate them off. When the *Hare* is started, and on Foot, step in where you saw her pass, and hollow in your *Hounds* 'till they have undertaken it, then go on with full Cry. Above all, be sure to observe her first Doubling, which must be your Direction for all that Day; for all her other after Doublings will be like that. When she is thus reduced to the Sights and

Of Hunting.

and Shifts the makes by Doublings and Windings, give your Dogs *Time* and *Place* enough to cast about your Rings, for unwinding the same; and observe her *Leaps* and *Skip*s before the Squat. and bear curiously all likely Places of Harbour: She is soon your Prey now.

Of Cony Catching.

Their *Seasons* are always, and the Way of taking them thus: Set Purfenets on their Holes, and put in a *Ferret* close muzzled, and he will boult them out into the Nets: Or blow on a sudden the Drone of a Bag-Pipe into the Burrows, and they will boult out: Or for want of either of these two, take Powder of *Orpiment* and *Brimstone*, and boult them out with the Smother: But pray use this last seldom, unless you would destroy your Warren. But for this Sport, *Hays* are to be preferred above all.

Of Fox Hunting.

January, *February*, and *March*, are the best Seasons for Hunting the Fox above Ground, the Scent being then strong, and the coldest Weather for the Hounds, and best finding his Earthing. Cast off your sure Finders first, and as the *Drag* mends, more; but not too many at once, because of the Variety of Chases in Woods and Coverts. The Night before the Day of Hunting, when the Fox goes to prey at Midnight, find his Earths, and stop them with Black-Thorns and Earth. To find him, draw your Hounds about Groves, Thickets, and Bushes near Villages; Pigs and Poultry inviting him to such Places to lurk in. They make their Earths in hard Clay, stony Grounds, and amongst Roots of Trees; and have but one Hole strait and long. He is usually taken with Hounds, Grey-Hounds, Terriers, Nets, and Gins.

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Of Badger-Hunting.

This Creature has several Names, as *Gray, Brook, Boreson, or Bauson*; and is hunted thus. First, go seek the Earths and Burrows where he lieth. and in a clear Moon-shine Night, stop all the Holes but one or two, and in these fasten Sacks with drawing Strings; and being thus set, cast off your Hound, and beat all the Groves, Hedges, and Tuffs a Mile or two about, and being alarm'd by the Dogs, they will repair to their Burrows and Kennels, and running into the Bags, are taken.

Of the Marten or Wild Cat.

These two Chases are usually hunted in *England*, and are as great Infesters of Warrens as the two last mention'd Vermine, but are not purposely to be sought after; unless the Huntsman see their Place of Prey, and can go to it; and if the Hunt chance to cross them, Sport may be had. But no Rule can be prescribed how to find or hunt them.

Of the Otter.

This Creature useth to lie near Rivers in his Lodging, which he cunningly and artificially builds with Boughs, Twigs, and Sticks. A great Devourer of Fish. It is a very sagacious and exquisitely Smelling Creature, and much Cunning and Craft is required to hunt him. But to take him, observe this in short. Being provided with *Otter-Spears*, to watch his Vents, and good *Otter-Hounds*, beat both Sides of the River Banks, and you'll soon find if there is any. If you find him, and perceive where he swims under Water, get to stand before him when he Vents, (i. e. takes Breath) and endeavour to strike him with the Spear: If you miss him, follow him with your Hounds, and if they are good for Otter, they will certainly beat every Tree-Root, Bulrush-Bed, or Osier-Bed, so that he cannot escape you.

Of Riding.

Of the Wild-Goat.

The *Wild-Goat* is as big and as fleshy as a *Hart*, but not so long Legg'd. The best Time for Hunting them is at *All-hallowtide*; and having observed the Advantages of the Coasts, Rocks, and Places where the *Goats* lie, set Nets and Toils towards the Rivers and Bottoms; for 'tis not to be imagin'd the Dogs can follow them down every Place of the Mountains. Stand some on the Tops of the Rocks, and as occasion offers, throw down Stones; and place your Relays at the small Brooks or Waters, where the *Goat* comes down; but let them not tarry 'till the Hounds come in, that were cast off.

Thus much for HUNTING.

OF RIDING.

HERE we must first examine the Ends and Design of our proposing this Art to our selves, and accordingly lay down as briefly as may be, the necessary Rules and Lessons are to be observed and learnt; and I take these to be the usual Perfections we aim at, *To Ride well the great Horse, for the War or Service, and the Horse for Pleasure*; of both which as concisely as I can in their Order.

We must begin with *Taming a young Colt*. After you have kept him at home some Time, and made him so Familiar with you, as to suffer *Combing, Carrying, Handling, and Stroaking* any Part, 'tis high time then to offer him the Saddle; which you must lay in the Manger first, that by its Smell he may not be afraid of it, or the *Styrups* Noise. Then gently Saddling him (after his Dressing) take a sweet *Watering Trench*, anointed with Honey and Salt, and place it in his Mouth so, that it may hang directly

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over his Tush ; then lead him abroad in your Hand, and Water him ; and after he has stood an Hour rein'd, take off his Bridle and Saddle, and let him feed 'till Evening ; then do as in the Morning ; dress and cloath him, having cherish'd, by the Voice delivered smoothly and gently ; or by the Hand, by gently stroaking and clapping him on the Neck, or Buttock ; or lastly, by the Rod, by rubbing it on his Withers or Mane.

On the next Day, as before ; and after that, put him on a strong *Muscle*, or sharp *Cavexan* and *Martingale*, which is the best Guide to a Horse for setting his Head in due Place, forming the Rein, and appearing graceful and comely ; it corrects the yeking out his Head or Nose, and prevents his running away with his Rider. Observe therefore to place it right, that it be not buckled strait, but loose, and so low, that it rest on the tender Gristle of his Nose, to make him the more sensible of his Fault and Correction ; and so as you see you win his Head, bring him straiter by Degrees ; let him but gently feel it, 'till his Head be brought to its true Perfection.

Having observed this well, lead him forth into some soft or new plow'd Land, trot him about in your Hand a good while : Then offer to Mount ; if he refuse to suffer you, trot him again, then putting your Foot again into the Styrrup, mount half way ; if he takes it impatient, correct him, and about again ; if not, cherish him, and place your self a Moment in the Saddle, dismount, cherish, and feed him with Grass or Bread : All Things being well, remount, even in the Saddle, keeping your Rod from his Eye ; then let one lead him by the *Chaff-Halter*, and ever and a-pon make him stand, and cherish him, 'till he will of his own accord go forward ; then come home, alight gently, dress and feed him well. This Course in few Days will bring him to Trot, by

by following some other Horse-Men, stop him now and then gently, and forward; not forgetting seasonable *Cherishings* and *Corrections*, by *Voice*, *Bridle*, *Rod*, *Spur*.

Being thus brought to some Certainty of *Rein*, and *Trotting* forth-right, then to the treading forth of the *large Rings*. And here, first examine your Horse's Nature before you chuse your Ground; for if his Nature be dull and slothful, yet strong, then *New-plow'd Fields* is best; if active, quick, and fiery, then *Sandy-Ground* is to be preferr'd, in the most proper of which, mark out a large Ring of 100 Paces Circumference. Walk about it on the Right seven or eight Times; then by a little straitening your right Rein, and laying your left Leg Calf to his Side, make a half Circle within the Ring upon your right, down to its Centre; then by straitening a little your left Rein, and laying your right Leg Calf to his Side, make a half Circle to your left Hand, from the Center to the outmost Verge, and these you see contrary turned, make a Roman 9. Now to your first large Compass, walk him about on your left Hand, as oft as before on the Right, and change to your Right within your Ring: then trot him first on the Right hand, then on the Left, as long as you judge fit, and as often Mornings and Evenings as the Nature of your Horse shall require. In the same manner you may make him to Gallop the same Rings, tho' you must not enter it all at once, but by Degrees, first a Quarter, then a Half-quarter; and the Lightness and Cheerfulness of your Body, not the Spur, must induce him to it.

The next Lesson is to *Stop Fair*, *Camely*, and without Danger. First, see that the Ground be hard and firm, then having cherish'd your Horse, bring him to a swift Trot, about Fifty Paces, and then straitly and suddenly draw in your Bridle-Hand, then ease a little your Hand to make him give back.

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backward, and in so doing, give him Liberty, and cherish him; then draw in your Bridle-hand, make him retire and go back; if he strike, ease your Hand; if he refuse, let some By-stander put him back, that he may learn your Intention, and thus he may learn these Two Lessons at once.

To advance before, when he stoppeth, is thus taught: When you stop your Horse, without easing your Hand, lay close and hard to his Sides both Calves of your Legs, and shaking your Rod, cry, *Up, Up*; which he will understand by frequent Repetition and Practice: This is a graceful and comely Motion, makes a Horse agile and nimble, and ready to turn; and therefore be careful in it, that he take up his Legs even together, and Bending too his Body, not too high, for fear of his coming over; not sprawling or pawing, or for his own Pleasure; in these Faults correct him with Spur and Rod.

To Yerk out behind is the next Lesson; thus learnt, presently upon your making him stop, give him a good brisk Jerk near his Flank, which will make him soon understand you. When he does it cherish him, and see he does it comely, for to yerk out his hinder Legs, 'till his fore Legs be above Ground is not graceful; or one Leg yerk'd farther out than the other; or one Leg out while the other is on the Ground; in this Case a single Spur on the faulty Side is best. But to help him in Yerking, staying his Mouth on the Bridle, striking your Rod under his Belly, or touching him on the Rump with it.

To Turn readily on both Hands, thus: Bring his large Reins narrower, and therein gently walk him, 'till acquainted. Then carry your Bridle-hand steady and strait, the outmost rather straiter than the inmost Rein, to look from rather than to the Ring; trot him thus about, on one side and the other, successively, as aforesaid. After some Time stop, and make him advance twice or more, and retire in an even

even Line; then stop and cherish him. To it again after the same manner, making him lap his outmost Leg above a Foot over his inner. And thus the *Terra a Terra*, *Incuvalere* and *Chamblatta* are all taught together. Perfect your Horse in the large Ring, and the strait Ring is easily learnt.

Your Horse being thus far brought to Perfection with the *Musrole* and *Trench*, now let a gentle Cavalier take their Place; with a smooth Cannon-Bit in his Mouth, and a plain watering Chain, Cheek large and the Krib-thick round and big, loosely hanging on his nether Lip; and thus mount him, and perfect your Horse with the *Bit* in all the aforesaid Lessons as you did with the *Snaffle*; which indeed is the easier to be done of the Two.

To Teach your Horse *To go aside*, as a necessary Motion for shunning a Blow from an Enemy, is thus: Draw up your Bridle-hand somewhat strait, and if you would have him go on the Right, lay your left Rein close to his Neck, and your left Calf likewise close to his Side (as in the *Incuvalere* before) making him lap his left Leg over his right, then turning your Rod backward, jerking him on the left hinder Thigh gently, make him to bring to the right Side his hinder Parts, and stand as at first in an even direct Line: Then make him remove his fore Parts more, that he may stand as it were Cross over the even Line, and then bring his hinder Parts after, and stand in an even Line again. And thus you must do, if you would have him go on the left Hand using your Corrections and Cherishings on the right. Use it, and you may be sure of Perfection.

For the *Correers*, only take this: Let it not extend in Length above six Score Yards, give your Horse warning before you start him by the Bridle-Hand, and running full Speed, stop him suddenly, firm and close on his Buttock.

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For the *Horse of Pleasure*, these following Lessons are to be learnt. As first to *Bound aloft*, to do which, Trot him some Sixteen Yards, then stop, and make him twice advance; then streighten your Bridle-hand; then clap briskly both your Spurs even together to him, and he will rise, tho' it may at first amaze him; if he does it, cherish him, and repeat it often every Day, 'till perfect.

Next to *Corvet* and *Capriole* are Motions of the same Nature, and in short are thus taught. Hollow the Ground between two joining Walls a Horse length, by the side of which, put a strong smooth Post of the same length from the Wall, and fasten at the Wall an Iron Ring over-against the Post: Thus done, ride into the hollow Place, and fasten one of the *Caravan* Reins to the Post, and the other to the Ring; then cherish him, and by the help of the Calves of your Legs, make him advance two or three times; then pause and and cherish him; make him advance again a dozen times more, and then rest; double your Advancings, and repeat them 'till it becomes habitual to him, to keep his Ground certain, advance of an *equal height* before and behind, and observe a due *Time* with the Motions of your Legs. The Inequality of his advancing his hinder Legs, is helpt by a Jerk on the Fillers by some Body behind him with a Rod.

Of R A C I N G.

A RACER must have the *Finest, Cleanest Shape* possible, and above all, *Nimble, Quick, and fiery*, apt to *Fly with the least Motion*; nor is a long Bodied contemptible, it assuring *Speed*, tho' it signifies *Weakness* too. The *Arabian, Barbary, or his Bastard*, are esteemed the best for this Use, these excellent *Jennets*, tho' they are good too.

Having furnished your self with a Horse thus qualified, you are to observe his Right and due Ordering, before your designed Racing. Bartholomew-tide is the most proper Time to take him from Grass; the Day before being dry, fair, and pleasant: That Night let him stand conveniently to empty his Body; the next Day *stable* him, and feed him with *Wheat-straw* that Day, and no longer; lest, you exceeding that time, it straiten his Guts, heat his Liver, and hurt his Blood; for want of *Straw*, Riding him Morning and Evening to Water, Airing or other moderate Exercises will serve. Then feed him with good old Sweet Hay, and according to the Season, and Temperature of his Body, cloth him; for a smooth Coat shews Cloth enough, and a rough Coat want of it. Observe likewise where you water your Race-Horse, that it may be a running Water, or clear Spring, far distant (a Mile or more) from the Stable, adjoining to some Level; where, after he has once well drank, Gallop him, and so Water and Scope him, 'till that he refuse to drink more for that time; then Walk him gently home (being an Hour on your way or more) cloath, and stop him round with soft Whips, and let him stand an Hour upon his Bridle, and after feed him with sweet sound Oats, thoroughly dry'd, either with Age, Kilm, or Sun; if he be low of Flesh, or bad Stomach, add a third part of clean old Beans, or two parts of Oats, or Wash his Oats in strong Beer or Ale.

For Dressing, take these Rules. Dress your Horse twice a Day before you Water him, both Morning and Evening, thus; Curry him after he is uncloath'd from his *Ears* tips to his Tail, and his whole Body intirely (save his Legs under the Knees and Cambrels) with an Iron-Comb; then dust him, and rub him with a Brush of Bristles over again; dust him again, and wetting your Hand in clean Water, rub off all the

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thus the loose Hairs, and so rub him dry as at first ; then with a fine *Hair-Cloth* rub him all over ; and lastly, with a fine *Linen-Cloth*, and then pick his Eyes, Nostrils, Sheath, Cods, Tuel and Feet clean.

The best Food for your *Racer*, is good, sweet, well dry'd, sunned and beaten *Oats* : Or else Bread made of one part Beans, and two Parts *Wheat*, i. e. two Bushels of *Wheat* to one of *Beans*, ground together : Boul't through a fine Range half a Bushel of fine *Meal*, and bake that into two or three Loaves by it self, and with Water and good store of *Barm*, knead up, and bake the rest in great Loaves, having sifted it through a *Meal-sieve* : (But to your finer, you would do well to put the Whites of Twenty- or thirty *Eggs*, and with the *Barm* a little *Als*, 'tis no matter how little Water) : With the Coarser, feed him on his Resting Days, on his Labouring-days with the finer.

The best time for feeding your *Runner* on his Resting-days, is, after his Watering in the Morning, at One a Clock at Noon, after his watering in the Evening, and at 9 or 10 a Clock at Nights : On his Days Labour, two Hours after he is thoroughly Cold outwardly and inwardly, as before.

As for the Proportion of Meat, I shall not confine your Love to a Quantity, only give him a little at once, as long as his Appetite is Good. When he begins to fumble and play with his Meat, hold your hand, shut up your Sack.

As for his *Exercise*, it ought to be thrice a Week, as his bodily Condition requires ; if he be foul, moderate Exercise will break his Grease ; if clean, then as you judge best, taking heed of breaking his Mettle, or discouraging him, or laming his Limbs. Before you Air him, to add to his Wind, it is requisite to give him a raw Egg, broken in his Mouth : If your Horse be very Fat, air him before Sun-rising and after Sun-set ; if lean, deprive him not of the

least Strength and comfort of the Sun you can devise. To make him Sweat sometimes by Courting him in his Cloaths is necessary, if moderate; but without his Cloaths, let it be sharp and swift. See that he be empty before you course him; and it is wholesome to wash his Tongue and Nostrils with *Vinegar*, or *Piss* in his Mouth, before you back him. And after his Exercise, cool him before you come home; House, Litter, and rub him well and dry; then cloath him, and give him after every Course a Scouring, thus prepared.

For Scouring a Race-Horse.

Take 20 Raisins of the Sun stoned, 10 Figs slit in the midst, boil them till they be thick in a Pottle of fair Water, mix it with Powder of *Annis-seeds*, *Lycorice* and *Sugar-candy*, till it come to a stiff Paste, make them into round Balls, roul them in Butter, and give him three or four of them the next Morning after his Course, and ride him an Hour after, and then set him up warm. Or this may be preferred, being both a Purge and a Restorative, a Cleanser and a Comforter, thus prepared.

Take three Ounces of *Annis-seeds*, six Drams of *Cumin-seeds*, one Dram and half of *Carihamps*, one Ounce and two Drams of *Fenugreek-seed*, one Ounce and half of *Brimstone*; beat all these to a fine Powder, and searse them; then take a pint and two ounces of *Sallet-Oyl*, a pint and half of *Honey*, and a Pottle of *White-wine*; then with a sufficient Quantity of fine white *Meal*, knead and work all well into a stiff Paste; keep it in a clean Cloth for use. When Occasion requires, dissolve a Ball of it in a Pail of Water, and after Exercise, give it him to drink in the dark, that he may not see the Colour, and refuse it: If he does refuse, let fasting force him to be of another Mind.

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Of Artificial Fire-works. 29

To conclude these Instructions, I will give you 'em in short before you run, and then away as fast as you can.

Course not your Horse hard 4 or 5 Days before you Match, lest you make his Limbs sore, and abate his Speed.

Muzzle him not (except a foul Feeder) above two or three Nights before the Race, and the Night before his bloody Courses.

Give him sharp as well as gentle Courses on the Race he is to run

Shooe him a Day before you run him.

Let him be empty on the Match Day.

Saddle him in the Stable, and fix to him the Girths and Pannel with Shooe-makers Wax.

Lend him with all gentleness to his Course, and let him smell other Horses Dung to provoke him to stale, &c.

And lastly, being come to the starting Place, rub him well, uncloath him; and then take his Back, and the Word given, with all Gentleness and Quietness possible, start away; and God speed you well.

School of Recreation. How to make Artificial Fire-works of all Sorts for Pleasure, &c.

OF Artificial Fire-works for Recreation, there are three general sorts, viz. Those that ascend or mount in the Air: Those that consume on the Earth: And such as burn on the Water. And these are again divided into three Particulars, viz. For the Air the Sky-rocket, the flying Saucisson, and Balloon: For the Earth the Ground-rocket, the fiery Lances, and the Saucissons descendent. For the Water-Globes or Balls, double Rockets, and single Rockets; and of these in their particular

30 Artificial Fire-works.

Orders, to make them, and such other Matters, as may occur relating to Fire-works.

But before I enter particularly on them, it will not be amiss to give the Unlearned Instructions for making his Moulds for Rockets, &c.

This Mould must be of a substantial piece of Wood well season'd, and not subject to split or warp; and first the Caliber or Bore of it, being an Inch in Diameter; the Mould must be six Inches long, and Breech an Inch and half; the Broach that enters into the Choaking part, three Inches and a half long, and in Thickness a quarter of an Inch. The Rowler on which you wrap the Paper or Paste-board being three quarters of an Inch Diameter, and the Rammer somewhat less, that it may easily pass and re-pass, made hollow to receive the Broach; for the Cartouh Coffin must be filled with the Materials, the Broach being in.

If the Bore be two Inches Diameter, the Rocket must be twelve Inches in length; If an Inch and a half in Bore, then nine Inches long, and so proportionably to any other Diameter. The Cartouh or Case, must be either strong Paper or fine Paste-board, choaked within an Inch and quarter of the top, rowled on the Rowler with a thin Paste to keep the Doublings the nigher together, that it may have the greater force and higher flight. Having thus far considered your Mould and Cartouh or Case, I proceed to the Composition and filling part, &c.

A Sky-Rocket, how to make it, &c.

In the Composition of your filling Materials be very cautious that you exceed not the just Proportion, for which I shall give Directions to be a Standard in this Case, viz. Having beat a Pound of Powder very fine, and sifted it through a Lawn-Sieve, that no whole Corns remain in it; do the like by two Ounces of Charcole; then sift them together,

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together, so that they may mix well, which done, fill a small Rocket with this Mixture, and if it break in mounting, before it come to the supposed height, or burns out too fierce, then is there too much Powder, and more fine sifted Charcole must be added; but if there be too much Charcole in the Composition, then upon Trial it will not ascend, or very little.

Observe in charging your Rocket, at every quarter of an Ounce of Ingredients, or thereabouts, you ram it down very hard, forcing your Rammer with a wooden Maller, or some weighty piece of Wood, but no Iron or Stone, for fear any Sparkles of Fire fly out and take your Combustible Matter; so fill it by Degrees. If you design either to place Stars, Quills, or small Rockets on its Head; you may put in about an Inch and a half of dry Powder for the Bounce; but if you are to place the fore-mention'd Things on the Head of a great Rocket, you must close down the Paper or Paste-board very hard, and prick two or three Holes with a Bodkin, that it may give Fire to them when it expires, placing a large Cartouche or Paste-board on the Head of the Rocket, into which you must put the Stars or small Rockets, Paper-Serpents or Quill-Serpents; of which I shall speak more hereafter.

Note further, That if you would have your Rocket sparkle much, you must put some grossly bruised Saltpetre into the Composition; but then it must not lie long before it be let off, for fear it give and damp the Powder. If you would have it leave a blue Steam, as it ascends, put fine beaten and sifted Sulphur into it, but of neither of these more than a third part of Charcole; and in this manner greater and lesser Rockets are made, but the lesser must have more Powder and less Charcole than the greater, by a fifth part in six.

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Golden Rain, and Golden Hair.

For Golden Rain, or Streams of Fire, that will when at height, descend in the Air-like Rain : Take large Goose-Quills, take only the hollow Quill as long as may be, fill it with beaten Powder and Charcoal ; as for the Air-Rocket only add a little Powder of Sulphur. Being hard filled to a quarter of an Inch, stop that with wet Powder, called Wild-fire ; place as many as you think convenient on the Head of a great Rocket, pasted on in a Row of Paper, so that it may not fall off 'till the Rocket bursts, there being a little dry Powder in it to force the end when the Stream of Fire ceases, at which time they taking, will appear like a Shower of Fire of a golden Colour, spreading themselves in the Air, and then tending directly downwards. This is to be consider'd when you stand directly, or something near under them ; but if you are at some Distance, then they will appear to you like the Blazing Tail of a Comet, or Golden Hair.

Silver Stars, how to make them.

To make Stars that will expand in Flame, and appear like natural Stars in the Firmament for a time : Take half a pound of Salt petre, the like quantity of Brimstone, finely beaten together, sifted and mingled with a quarter of a pound of Gunpowder so ordered : Then wrap up the Composition in Linen Rags or fine Paper, to the quantity of a Walnut, bind them with small Thread, and prick holes in the Rag or Paper with a Bodkin, and place six or ten of them on the Head of a great Rocket, as you did the Quills, and when the Rocket expires, they take Fire and spread into a Flame, hovering in the Air like Stars and descend leisurely 'till the Matter is spent that gives them Light.

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Red fiery coloured Stars, how to make them.

Take in this Case half a pound of Powder, and double the Quantity of Saltpetre; as much fine Flower of Brimstone as Powder, wet them with fair Water and Oil of Petroleum, till they will stick together like Pellets; then make them up somewhat less than the former, and rowl them in sifted dry Powder, then let them harden, by drying in the Sun, or Air, and place them on a great Rocket, as you did the other Stars, and you will perceive them when the Rocket is at the height, fall like Bodies or Globes of Fire, in the manner as if real Stars were shooting or falling from the Sky; for by Reason of their Wetness or Density, they cannot expand into Flame, which occasions them by the Pressure of their Weight to descend with greater Impetuosity, till they waste and vanish into Air, &c.

Another sort of Stars that give great Reports in the Air, as if Armies were fighting.

Here you must observe to place six, seven, or eight small Rockets on the Head of a great one, filled only with dry Powder, but indifferently rammed, and on the Ends of them Holes, being prick'd through, place any of the sorts of Stars, or a Mixture, as your fancy leads you; and when the small Rockets go off like Thunder in the Air, the Stars will take Fire, so that the Noise will seem to the Spectators as if it proceeded from them, because they will be seen on Fire before the Sound of the Reports can be heard.

To make Paste-board Mortars for Balloons.

These stately Prospects of Fire are to be carried into the Air by the force of Powder, by the help of Mortars; and therefore the making of the Mortars are in the first place to be considered,

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Take a Rowler of Wood, about 12 Inches Diameter, and three Foot and a half in Length, wet strong Paste-board, and rowl upon it as close as may be, glewing the Paste-board between each Rowling; then being about five Inches thick, bind over it strong pitch'd Rope, though indifferent small: Then choak the Breech of it, which must be beyond the Length of the Rowler, with a strong Cord, pitch or glue it over, that the Powder may not force its Vent that way, and so when the Mortar is well dry'd, draw out the Rowler, and make it as even as can be; bore a Touch-hole two Inches from the Breech, that it may enter into the hollow of the Mortar, and set it by for use.

To make Balloons, the Rarity of Fire-works.

Take strong Paper or Paste-board, rowl it on a 12 Inch Rowler, near as thick as 'tis long; then with a strong small Cord choke it at one end only, leaving a Port-fire, which is a Place to put in a Quill of Wild-fire, that will last till (being shot out of the Mortar) it comes to its height; then next to that put on an Ounce and a half of loose Powder, and place in it as many small Rockets and Stars as it will hold; so choak up the other end quite. You may also put into it little Quills of Wild fire, then being closed up only a Port-fire remaining, which made of a Quill of Wild-fire, as is said, or Stopple, to make which in the Close of this Head I shall instruct you, charge the Mortar, being set sloaping upwards with half a Pound of Corn-Powder, and it will by giving fire at the Priming-holes, send the Balloon up into the Air a prodigious height, and when it comes to the dry Powder, that will break the Balloon; and then the Stars and Rockets in it taking Fire, will scatter abroad in various curious Figures, delightful to the Spectators; and as they are cunningly placed, they will represent Crowns, Cyphers, Characters, Dates of the Year, &c.

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The Airy or Flying Saucisson, how to make it.

This curious Fire-work must be made in the Composition Matter for filling mostly of corned Powder, putting before it when you fill the Cartouche or Case as much fine sifted Powder and Charcole as composed for the Rocket, will carry it to its height; leave a hole for the Cort-fire in the choaking as big as a Goose-Quill will enter, filling it with Dust-powder and Charcole, and so close up the open end, by turning in the Paper of Paste-board corner-wise, either glewing or waxing it down.

Paste-board Guns to cast the Saucissons into the Air, how to make them.

To make these kind of Guns, Take a Rowler, somewhat less than for the Balloon, rowl on it your Paste-board, and cord it over with strong Pack-thread, making their Touch-holes at the Bottom, because they must be placed upright on a Plank or Board in a row fixed into Plank or Board in Holes cut proportionable to them, and lashed fast to Staples above and beneath with strong Cords, and being charged with a quarter of a pound of Powder, fire by Match or otherwise, given to the Touch-hole underneath the Plank, when the Saucisson is lightly put in with the Neck or Port fire downward, so that it may touch the Powder; and this will serve for Use a considerable time.

Saucissons for the Earth or Water, how to make them.

Make your Cartouches or Cases about nine Inches long, and an Inch in the Diameter of the Calliber, by rowling Paper or thin Paste-board on a wooden Rowler; choak the ends only, leaving at one end a Passage

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a Passage to thrust in a Goose Quill filled with Dust-powder and Charcoal well mixed, at a Port-fire, Glue them over, or use small Cord glued or pitched to strengthen the Case that it burst not unseasonably by the Force of the Composition, with which you must fill them when you have choaked; only at the Port-fire end, the Composition being about 2 Inches, the same as the former, the rest corned Powder, having primed and fixed them on a Plank in a Row, about a Foot Distance, lay a Train of Stouple, and they will fire gradually, flying about on the Earth, or the Water, according as you place them, giving Reports like a Volley of Muskets.

This Stouple is useful for Trains, and Port-fire is no more than Cotton-wool well dressed in Water and Gun-powder dry'd in the Sun, or in a clean-swept warm Oven, that it may come somewhat near Tinder, but more swift and fiercer in its Fire when it has taken.

Fire-Boxes, to make them.

Take a great Cartouss or Case made, as for the Balloon, croud it full of small Rockets or Serpents, with the choaked part downward, prime them with Stouple or Wild-fire; fix it firm on a Pole, make a priming Hole in the side towards the lower end, and run in a Quill of fine beaten Powder, and they will fly out (the upper end being left open) one by one as swift as may; or if you scatter loose Powder, they will fly out several together, with a prodigious Noise, and breaking, imitating a deal of Thunder.

Fire-Lances, how to make them.

These are usually for running on the Water, making there a very pleasant Pastime; their Cartouss or Cases are made like the small Rocket, with thin Paste-board glued and rowled up on a wooden Rowler, about nine Inches long: If you would have it

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Of Artificial Fire-works. 37

carry a long fiery Tail on the Water, the Composition must be 2 ounces of Charcoal, half a pound of Brimstone, half a pound of Powder, and half a pound of Salt-petre, or proportionable for so many as you make, bruised finely, and sifted; but if you would have it burn bright like a Torch, put only four ounces of Powder to the fore-named quantity of Brimstone and Salt-Petre, without any Charcoal-dust, tying to each Line a Rod in the same Nature as to the Sky-Rocket; but not of that largeness; and they will float about a long Time, making a strange shew in a dark Night, their ends being so placed on a Frame when you give fire, that they may leap out of themselves, one, two, or three at a time, or as you design them, by putting more or less Stouple for Port-fires; scatter a very small quantity of loose Powder underneath.

To make the Appearance of Trees and Fountains of Fire.

This is done by placing many little Rockets on the Head of a great one, by passing their slender Rods through its largest Cartouch; and if they take fire whilst the Rocket is vigorously ascending, they will spring up like Branches or fiery Trees; but if they go off just as the Rocket is spent, and descending, they will appear like a Fountain of Fire.

Girondels or Fire-Wheels, how to make them.

Take a Wheel of light Wood, like the Circle of a Spinning-Wheel, on which the Band is placed; tie small Rockets round it in the Nature of a Band, so fast, that they cannot fly off; and so Head to Tail, that the first fir'd, when it bursts may give fire to the next, whose force will carry the Wheel (which must be placed on a strong Pin in the Axeltree) round so fast, that although but one Rocket go off at a time, it will seem all on fire, and so continue whilst all are gradually

38. Of Artificial Fire-works.

gradually Spent; and this especially at the Angles great Fireworks are very Ornamental.

Ground Rockets, and the best way of making Serpents.

The Mould of the Ground-Rocket may be made in all Particulars like that of the Sky-Rocket, but less in Length and Circumference, six, seven, or eight Inches being a warrantable Length; rowl on the Cartoush or Case to a moderate thickness; choak it at one end, fill it, the Broach being in as the Sky-rocket; with this Composition.

Put but an ounce of Charcole to a pound of Powder, and about half an ounce of Salt-petre, beat, mingle and sift them finely; put in about a quarter of an ounce between every Ramming, till it is full within an Inch with corned Powder, lightly ramming it, leaving only so much room as may choak it at that end, cutting then off what hangs over, and leaving it with a picked end; being thus finished, prime it with a little wet Powder, and lay it a drying till you dispose of it for your Pastime.

The Serpent is a kind of small Rocket; to make them therefore well, make a Case of strong white Paper, about six Inches and a half, the Rowler being about the Thickness of a small Arrow, it must have a Head and a Broach proportionable, being rowled up hard past the Edge that turns over; choak it with a strong Packthread, and fill it with a Composition of six ounces of Powder to one of Charcole, both beaten finely, sifted and well mingled; put in a little and little at a time, and every time you put any in, ram it down hard till within an Inch full; then put in corned Powder, press it down gently, and with the end of your Rammer force down the end that stands a little above; so that it may

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cover the Powder, and then seal it down with Wax ; prime with Dust-powder, and a little Flower of Brimstone, and with your Match having a good Coal on it, give fire as you see Occasion.

Fiery Globes or Comets, how to make them.

Take half a pound of Powder, two Ounces of Brimstone, an Ounce of Salt-petre, bruise these grossly, and wet them ; Aqua-Vitæ and Oil of Petroleum, that they may be moulded like a Paste, that so they may be made up into Balls, as big as ordinary Wash-balls ; then dry them very hard, and wrap them up in Cerecloths made of Brimstone, Rosin and Turpentine, in which make a little Hole, and prime with Wild-fire : Put the Ball then into a Sling, and the Wild-fire being touched, throw it up as high as you can into the Air, and when the Body of the Ball fires, it will appear to the Beholders like a fiery Globe, with a Stream or Blaze like as if a Comet or Blazing Star were Ascending or Descending, according to its Heighth or Declination.

To try the Goodness of Powder, that you may know its Strength.

Observe whether it be well dry'd and corned, which you have taken Notice of, and approv'd, lay a few Corns scattered on a Sheet of white Paper, and fire them ; then if they leave a black and sooty mark behind them, with a noisome Smell, and singe the Paper, then is that Powder gross and earthy, and will fail your Expectation, if you use it in your Fire-works ; but if in the sprinkling and firing there appear few or no Marks, or those of a clear blewish Colour, then it is airy and light, well made, full of Fire, and fit for Service ; half a Pound of it having more Strength than a Pound of the other.

And thus Reader, have I given you an Insight into the making Fire-works &c. Such as are very pleasing, and now used on Occasions in all Christian Countries, in making which, by a little Practice, you may soon be perfect.

*St. George and the Dragon fighting, &c.
Also Mermaids, Whales, &c.*

Form your Figures of Paste-board, strengthen'd with Wicker, small Sticks within pasted to the Board to keep it hollow, tight and bearing out; and place a hollow Trunk in the Body for a large Line to pass through, and likewise for a smaller to draw them to and from each other, that they may the better seem in Combats, which must be fastened at the *Dragons* Breast, and let one end of the Cord be tied, which must pass through the Body of *St. George*, turning about a Pulley at the other end, and fastning it to his Back, and tie another at his Breast, which must pass through the Body of the *Dragon*, or a Trunk at his Back; and so returning about a Pulley at that end, it must be drawn strait, and fastened to the *Dragon's* Tail; so that as you turn that Wheel, they will run furiously at each other, and as you please, you may make them retreat and meet again, soaping the Line to make them slip the easier. At the *Dragon's* Tail, in his Mouth and Eyes, you must fix Serpents or small Rockets, which being fired at their setting out, will cause a dreadful Sight in a dark Night.

Thus a Mermaid or a Whale may be made to float on the Water; but then the Figure must be fixed on a convenient piece of Board, with two fire Wheels fixed on an Axle, run through the poised part of the Body, by the force of which it moves in a swift Line in the Water; the Wheels must have little Rockets or Serpents tied round them, as the Girondel before-mentioned.

A Fire-Drake on a Line.

Having made the Figure of Paste-board to the proper Form of a Dragon with Paste-board and Wicker, as has been taught before, make a hollow Trunk through the Body of it for a great Line to pass through, and fasten small Lines to draw it to and from you, at the Breast and Tail of the Drake; put into the Eyes, Mouth, and Tail of it Rockers so fixed, that they cannot fly out, as you may put Wild-fire rowled up hard and long in Paper: Then fire that in the Eyes and Mouth first, and draw it with Pullies from one end of the Line to the other, then that in the Tail, and draw it back, and it will seem as retreating from Danger, with Fire coming out of the Belly of it.

A Burning Castle and Dragon on the Water.

Make the Dragon of Paste-board and Wicker, as before, the Bottom of the Castle of light Wood, and the Work of Paste-board with Paper, Turrets and Battlements of a Foot height, in the Portal of the Castle fasten a Line, that it may come level with the Water, and therefore some part of the Castle must be under Water: This Line must be fastened to the other side of the Water, or in the Water, if it be broad, and admit not the former on a Pole or Stake knocked down, and pass in a hollow Trunk through the Belly of a Dragon, that being in the Castle, may upon firing the Rockets, placed advantageously in the Tail, Eyes, and Mouth, come out of the Castle, and move on the Line; to meet which, you may at the other end of the Line, in the same manner, prepare a Neptune in a Chariot, or riding on a Sea-horse, with a burning Trident, or Whale with a Rocket or Wild fire in his Mouth; which if it lie low, by spouting out, will make the Water fly about, as if it spouted Fire and Water

out

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out of his Mouth ; then by a Train-fire, some little Paste-board Guns in the Castle, which if the Composition of the Train be made of Wild-fire and Stouple, will go off by degrees, and coming to a Train of Brimstone, Rosin and Powder, make the whole Frame expire in a terrible Blaze.

A Wheel of Fire-works to run backwards and forwards on the Ground.

Procure a pair of Wheels, being of light Wood like that of a Spinning-Wheel, fasten them on an Axle-tree, and place Rockets round them, as bands are fastened round a Wheel, and so primed at Tail and Head, that when one expires, the other may take fire, half of them placed with their Heads, and Tails the contrary way to the first : So that when the first are spent, and the Wheels have run on plain Ground, a great way, the other firing, will turn them again, and bring them to the Place where the first set out.

A Fire that will burn in the Water, or Water-Ball.

Sow up a Case of Canvas like that of a Foot-ball but lesser, pitch or glue it over ; then take one Pound of Powder, eight Ounces of Roch-Alom four Ounces of life Sulphur, two Ounces of Camphire ; Linseed-Oil, and that of Petroleum, each an ounce and half ; an ounce of Oil of Spike, with two ounces of Colophonium bruised, and well mixed together, and stuff the Ball hard with it, with a Stick pitch or glue it over again, binding it with Marlin on Pitch, on that leave two Vents or Port-fires, set it on fire, trundle it on the Water, and it will burn under it.

The exactest Military Discipline for the Exercise of Foot and Horse, as in Use at this Day, at Home and Abroad, in all the Words of Command, &c.

TO be well disciplin'd and train'd up in Military Affairs, has been the Study and Pride of all Warlike Nations, whereby they have acquired to themselves Fame and Riches, by being able to defend themselves against Invaders, and gain Conquests Abroad; but above all others, for many hundred Years past, the *English* have excelled in this, being much helped by their natural Courage. But since I only at this Time intended to write to the Learner, to train him up in his Exercise, by which Means his own Industry and Experience may lead him forth to greater Matters; I shall not enumerate the many brave Men, who from mean Conditions have rais'd themselves by Arms, to the highest Pitch of Honour and Preferment; but shew our Youth what they are to do and observe in their first Training, as to the Words of Command, to order their Arms in their various Postures with Dexterity.

The Words of Command in the Exercise of the Musquet, and how they are to be Observed and Performed.

When you enter on this Exercise, be sure to keep your Footing firm, your Feet at a moderate Distance; that at all Times, and on all Occasions, you may retain your full Strength. Observe moreover to keep the right Heel firm, and set the Right-foot steady, and then attend to the Words of Command, which you

you are summoned to do by this Expression of the Commander, viz. *Musketeers, have a Care of the Exercise, and carry your Arms well.* After which, the proper Words of Command follow in their Order.

1. *Lay your Right-Hand on your Musket.*

Here the Lock being uppermost, turn the Barrel towards you, and extending your Fingers, lay your Right-hand directly behind the Lock; so close the Butt-end to your Shoulder, suffering the Musket to be in all Parts of an equal height.

2. *Poise your Musket.*

In doing this, you must hold it with a hard Grasp facing to the Right, and turning with a quick Motion on your Left-heel, your Musket kept directly before you the height of it, between your Shoulder and your right Elbow on your Side, keeping your Feet at a moderate Distance, that when you turn about your left Toe may stand to the Front, and your right Toe as you Face to the Left; let your Left heel be against the middle of your right Foot; and by such Means you will be in a resting Posture.

3. *Rest your Musket.*

Here slide your Musket down to your Left-hand bearing your Arm as low as possible without stooping, and so receive your Musket where the Scowen enters into the Stock, touching with your Hand a part of the Barrel, keeping it about half a Foot from your side sloping, your Right-hand, with your Fingers extended, being behind the Lock.

4. *Cock your Musket.*

Place the right Thumb, and your Finger behind the Trigger, so clap your Musket against your Thigh and Cock; keeping it that it slip not your Thumb, now removed steady on the Head of the Cock.

5. *Guard your Musket.*

Bring it with a very swift Motion strait before you, to recover your Left-hand even with your

Mouth

mouth, about half a Foot distance from it, not suffering your *Musket* to sink, nor stooping your Body, observing in bringing up the *Musket* before, which in recovering, that the right Heel be brought to the left Instep, your *Musket* being perpendicular.

6. *Present.*

Here fall back with your Right Leg, that the middle of the Right-foot may be against the Left-heel; cause the Butt end to rise to your Shoulder, making it firm, and keep your Right-Elbow even with the height of the Piece, being in a Readiness with the fourth Finger of your Right-hand to pull the Trigger, bowing the Left-knee, keeping the right firm and steady, and so level your *Musket* as high.

7. *Fire.*

Keep here an exact Motion in drawing the Trigger, every one drawing at once, so that the whole Fire of Company or Battallion may be as of one Report: keep your Body steady, and your *Musket* hard against your Shoulder after you have fired, till the next Word of Command is given, *viz.*

8. *Recover your Arms.*

Here let the Butt-end sink in both your Hands, and bringing it strait before you, keep your Right-hand under the Cock, and the Left even with your mouth.

9. *Half-bend your Musket.*

Fall back with your Right leg, and let the *Musket* once rest, placing the Right-thumb upon the Cock, and the Fingers of that Hand behind the Trigger; in closing it to your Thigh, half bend the Cock, and keep it rested with your Fingers extended.

10. *Clean the Pan.*

Do this with the Ball of your Thumb, pressed into the Pan, keeping your Fingers of the Right-hand behind the Lock.

11. *Hand*

11. *Handle your Primer.*

Take the little end between your Finger and Thumb, turning the other end to the back of your Hand, your Arm bearing backwards.

12. *Prime.*

Level your Piece, and strike your bruised Powder into the Pan half full, or somewhat more, keeping your Left Toe to the Front.

13. *Shut your Pan.*

This do by using your two first Fingers, casting back your Primer, and bringing up your Right-heel to your Left-instep, your *Musket* strait up before you, as in the Recovery, with the Barrel towards you; do it with a quick Motion with the Thumb of your Right-hand on the top of the Steel, levelling your Left with your Mouth.

14. *Blow off the loose Corns.*

Bring your Mouth within four Inches of the Pan, give a strong Blast without declining your Head, casting out your Arm, and suffering the *Musket* to sink from its former Posture.

15. *Cast about and Charge.*

Advance your Right-leg, turn the Barrel of your *Musket* downwards, bring it to your Left-side little backward, with your Left-hand, not touching the Barrel with your Fingers; place the Toes of your right Foot to the Front, and the Right-heel against the middle of the Left-foot, ballancing your *Musket* in the Left-hand, the Muzzle to the proper Front, in an equal height, half a Foot from you, joining your Right-hand to the Muzzle, your Thumb extended to the side of the Barrel.

16. *Handle your Charger.*

Gripe fast your Bandilier or Charger, hold it even with the Muzzle of the *Musket* underneath, about an Inch distant.

17. *Open your Charger with your Teeth.*

In this case, bring it up to your Mouth without inclining your Head, then bring your Charger within an Inch of your Muzzle, about an Inch from it, over your Charger's Mouth with the Ball of your Thumb.

18. *Charge with Powder.*

Put the Powder into the Barrel with a quick Motion, and put the Charger underneath as before.

19. *Draw forth your Scowrer.*

In this let fall your Charger, and upon turning your Hand, draw forth your Scowrer at Three Motions, holding it level the height of your Forehead, with an extended Arm, as if you designed to dart it.

20. *Shorten it to an Inch.*

Turn the great End of your Scowrer towards you, sinking it 'till within an Inch of your Hand, rest it somewhat below your Right-breast, bearing forward a little.

21. *Charge with Bullet.*

Take the Bullet out of your Mouth with your right-hand, put it into the Barrel with a swift Motion, holding the big end of your Scowrer near the Muzzle of your Musket.

22. *Ram down Powder and Ball.*

Grasp full with your Thumb and Fore-finger from the Muzzle, your Thumb on the top of the Scowrer, reserving a handful in your Hand.

23. *Withdraw your Scowrer.*

Your Hand, Thumb and Fore-finger turned towards the Muzzle, clear your Scowrer at Three Motions, and hold it up even with your Forehead, extending your Arm as if you were about to dart it.

24. *Shorten it to a Handful.*

Turn the But-end of your Scowrer towards you; sink it 'till within an Inch of the End, letting it rest against your Body a little below your Right-breast, the Scowrer sloping.

25. *Return*

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25. *Return your Scowerer.*

Put it up in its proper Place; grasp the Muzzle of your Musket with your Right-hand, extending your Thumb upon the Scowerer, keep it half a Foot distant from your Side.

26. *Poise your Musket.*

Here before you bring up your Musket with your Left-hand, grasp it under the Cock with your Right-hand, falling with your Right-leg to your Left: Keep it Poised against your Nose, and when faced to the Front, let your Right-elbow rest upon your Body.

27. *Shoulder your Musket.*

In this do as has been taught in the like Case before.

28. *Order your Musket.*

Sink a little your Right-hand, and take hold on the Stock on the Top of the Scowerer with your Left-hand, then suffer that Hand to sink, and take hold on the Muzzle with the Right-hand, letting the Butt-end easily sink near the Ground; then let it after a little Pause come down: As many as Exercise grounding them together, then close to the Right-foot, and place the Butt-end about the middle of it, your Right-hand an Inch below the Muzzle, the Lock being outward.

29. *Lay down your Musket.*

Turning it with the Back upwards, step forward with your Left-leg, so with your Right-hand, place it on the Ground, that it may lye with the rest in a straight Line: This some call grounding a Musket.

30. *Quit your Musket.*

Here stand upright with a quick Motion rising with a falling-back of your Left-leg to your Right.

31. *Handle your Musket.*

With your Left-leg step forward, and lay your Right-hand on the Muzzle.

32. *Order*

32. Order your Musket.

Raise the Muzzle, and fall back with your Left-leg to your Right, turning the Lock outwards by the middle of your Foot.

And thus much for the Exercise of the *Musket*, which may be much advantageous to young Trainers, who have occasion to be called or sent out upon Duty in the City or Country, and Country Militia of the *Trained Bands*, or for any other who is desirous to be knowing in, and entering upon Military Affairs.

Of the Match-Lock.

These Locks were formerly in more use than *Fire-Locks*; and at this Day they are sometimes mixed among them; wherefore I shall speak somewhat relating to the Words of Command, that seem to differ from the *Fire-Lock*, viz.

1. Lay down your Match.
2. Handle your Match.
3. Blow your Match.
4. Cock and try your Match.
5. Return your Match.

All these chiefly consist in keeping your Match in order, with a good hard and well lighted Coal, fastening it on Command advantageous in your Skrew, blowing the Coal, and so by pulling the Trigger, trying your Pan with false Flashes, laying it down at Command, and by the same Order taking it up again; shortning it to the Pan, that it may give true Fire, and upon firing, to return it, and recover the Coal, if it be shattered by the force of the Powder. You must observe also to keep your Match dry, that on Occasion you may not be disappointed.

And this in brief is all materially relating to the *Match-Lock*; the other Postures of the *Musket* are already described, being sufficient to direct the Exercise; yet seeing many lay much stress on the Beat of *Drum*, take that along with you, as it relates to

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Exercise,

Exercise, and so I shall take leave of the Foot, and make a visit to the Horse.

Exercise by Beat of Drum, relating to the Foot.

There are usually observed in this six Points, which are called Points of War, and are said to be Semi-vocal; because by them the Soldiers understand what is to be done, and can distinguish their Duty and Exercises; and of these in their Order.

1. *The Call.* This is to summon the Soldiers together to their Arms, or upon any other Occasion, as to hear Proclamation, or receive Directions, &c. from the Officers, and are not without Leave to ramble, especially in Time of War, beyond the hearing of it, under great Penalties.

2. *The Troop.* When the Soldiers hear this, they must advance their *Muskets*, and close their Ranks and Files to Order, following their Leaders or Commanders to the Place of Rendezvous, Quarters or elsewhere.

3. *The March.* When you hear this, you must betake you to your open Orders in Ranks, shoulder your *Musket*; and so as the Drum bears, you march slower or quicker.

4. *The Preparative.* Is to warn you to close your proportionable or due Distance, when you are to prepare for Battle or Skirmish; and to see every thing be in order that may turn to Advantage.

5. *The Battle.* This is by some called the Charge, or Signal to Charge the Enemy, and is beat in the beginning of the Fight to animate the Soldiers Courage.

6. *The Retreat.* This is beat when being overpowered, it is thought convenient to draw off and save a total Rout, or sometimes when an Enemy you suppose stronger than your self advances towards you to engage, but by Retreating you avoid him.

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There are two more Things on the *Drum*, somewhat to our Purpose viz.

1. *The Tattle or Tappo.* This is used in Rounds and Garrisons, to give Notice to the Soldiers and Inhabitants when they ought to repair to their Quarters and Houses.

2. *Reveille.* Is to let them know when it is time to rise in the Morning, and attend on their Duty also. In Garrisons, to let the People know when its safe to go abroad, the out Scouts being relieved.

The Exercise of Horse in Troops or Squadrons, &c.

The Exercise of the Horse is various from that of the Foot, and therefore that I may not be wanting in what is necessary to the young Soldiers in their Exercising in the Country Troops, or those that may enter the present Service Abroad, I shall endeavour to give the Words of Command proper with their Explanation.

And first, when a Troop or Squadron is drawn out to Exercise, I suppose their *Carbines* and *Pistols* loaded, and the Corporals passing through the Ranks to see they are all ready, upon which observe the chief Officers Commands Silence, and gives the following Words of Command, viz.

1. *Lay your Right-hands on your Swords.*

2. *Draw your Swords.*

3. *Put your Swords in your Bridle-hand.*

4. *Lay your Hands on your Pistols.*

5. *Hold up your Hands, Give Fire.*

When you have fired, let not your Pistol-hand sink till the next Word of Command, viz.

6. *Return your Pistols.*

And this you must observe in Firing to the Left and Right; Then

7. *Lay your Hands on your Carbines.*

8. *Advance your Carbines.*

9. *Cock your Carbines. Fire.*

10. *Let fall your Carbines.*

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31. *Take your Swords from your Bridle-hands.*

These must be done with a swift and exact Motion, all as near as may be doing it at one and the same Time.

If a Squadron of Horse is to wheel to the Right, the Right-hand Man must not close to the Left, as has in ancient times been; for that many times disorders the Rank; but you must keep your Ground, suffering the Left to come about whilst you only turn your Horse's Head, observing your Left-hand-man.

To close File.

The Right Wing File stand.

1. Close your Files.
2. To the Right.
3. To the Left as you were.
4. To the Left-wing and stand.
5. To the Left by Files close the Squadron.
6. To the Right as you were.
7. The Right and Left Wing Files stand.
8. By half Ranks, close Files to the Right and Left.

And by closing Files you may cleave or divide the Squadron.

The Order of Closing Ranks.

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| 1. File-leader stand. | } { | Or open on the Front, |
| 2. By Ranks close the Squadron to the Front. | | Or the first Distances. |
| 3. On the Front as you were. | | And so be cautious in observing each Motion. |

How doubling Ranks must be order'd.

1. By half Files to the Right, double your Ranks to the Front.
2. File-leaders, advance your Ranks, File-leaders take your Ground.

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And in this manner Command likewise to the Left, the Order being one and the same in the Words of Command. [Again.]

3. *The first half File stand.*

4. *By half File-leaders on the Left-Wing, double your Rank to the Front.*

Now to reduce this, take the following Method,

1. *Right-Wing half Ranks, advance your Ranks.*

2. *Half File-leaders take your Ground.*

3. *The first half File stand.*

4. *By half File-leaders on the Right and Left-wings, double your Ranks to the Front, Carocoling to the Right and Left. Then the last half File stand, and the first half File by Carocol in the Right and Left on the Wings; then double your Ranks on the Rear.*

Here observe the first File must open the half Rank to the Right and Left, the first half File by Carocol. Then

To the Right and Left double your Ranks to the Rear.

Here observe the last half File must open the half Rank to the Right and Left.

As for the Word *Carocol*, it signifies no more when you Wheel by it, than that it is made by the Depth of the Flank of the Squadron, by which Order, not the Files, but the Ranks make the Motion.

There is another Word which some may not well understand at the first setting out, which is called *Controwersion*, and this in Wheeling is performed by the Front of the Squadron, so that whilst the Rank makes the Motion, the File remains.

Instructions for Wheeling, with the proper Words of Command.

When the Word is given, viz. *To the Right by Conversion*, understand that you must close your Right-leg to the Horse, your Knee touching that of your Right-hand-man's, and in like manner observe in the

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Word of Command to the Left ; as when it is said, *Close to the Left*, then must the Leg be closed.

By half Ranks and Conversion, divide the Squadron into two Troops.

If you would reduce the Squadron, the Word of Command is,

By Conversion, The Squadron into one Troop, else the Left-wing advance by Conversion.

When you wheel by Carocol, observe the Word of Command as follows,

The Right-Wing to the Left by Carocol, Face about to the Rear : Or, it may be done by half Ranks in this manner,

By Quarter Ranks and by Carocol, divide the Squadron into three Troops.

Then if you would reduce them, order Quarter Ranks and Troops into Squadrons.

If the Volt, Face, or Facing about be required, observe thus,

Face about to the Right : Face to the Right by Counterconversion : Face about by Carocol to the Right : Face about to the Left by half Files : Face about to the Right and Left.

And thus much may serve for Wheeling.

The Manner of Filing off.

In this Case observe, To File by Ranks on the Right-Wing from the Squadron,

File off by Ranks, on the Left-Wing, from the Squadron on the Right.

File off by three Files from the Squadron, the Left-wing : And this is found the most expedient Way, though some have used to File off by Ranks.

In Hay, what Orders is to be considered in drawing up.

Do this by half Ranks to the Right : *To the Right and Left drawing in Hay : To the Front*, And if it requires

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quires to be reduced again, then proceed by Carocol, viz.

To the Right and Left as you were.

By half Ranks, and by Carocol to the Right and Left.

Then draw up in Hay to the Rear.

In Reduction the Command is,

To the Front as you were.

By half Ranks to the Right and Left, and draw up in Hay.

Reduction by Carocol.

To the Right draw up in Hay.

Reduction by Carocol.

To the Left as you were.

Of Doublings.

Doublings are very useful, especially in strengthening any Party, that needs Succour in the Battle; and is to be noted under these general Heads,

1. Doubling of Length, Front and Rear.

2. Doubling of Depth, both Flanks.

But in the particular, they are numbred six, that is to say, first of Ranks, when every Rank doubles into the odd, and if it so fall out, that the odd Ranks are to double, then must the Body Face to the Rear, without any Word of Command expected.

3. Half-Files. } Here they are held to double
4. Bringers } when the Rear is doubled into
up. } the Front.

5. In doubling the Rear observe it done when the half Files double the Rear.

6. Here take Notice that doubling of half Ranks must be by one Rank doubling the other.

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The Noble Science of Defence, in all its Useful Particulars ; for Defending and Offending, with the Rapier or final Sword ; after the exactest Method now in Use.

THIS Science, if well understood, as to the fining and using it, is not only a noble Exercise, but of great Importance, to the saving our Lives on emergent Occasions, if it extend not to Vain-glory and Presumption, by too much relying on our Skill, to carry us into Quarrels, which we may reasonably, and without Loss of Honour or Reputation avoid. Wherefore I have thought it convenient to lay down such Rules as may enable the Learner to proceed in the Practice.

The first Thing to be considered in this Case, is the Sword it self, understanding only in this the small Sword or Rapier, which is divided into two Parts, viz. The Hilt and the Blade.

The Hilt is again divided into three Parts, viz. The Pommel or Ball at the far end, sometimes Round and sometimes Oval in Shape. This keeps the Hilt fast, by being well riveted, and by its poise makes the Sword well mounted, or light before the Hand. The next is that part on which you grasp your Hand, commonly called the Handle : And then the Shell, which is that part of the Hilt next the Blade, to preserve your Hand (if you are any thing wary in managing it) from a Thrust or Blow.

The Blade is divided into two Parts only. The first next to the Hilt, being termed the strong Part or Fort. The other, which is the Extream, is termed the Feeble, or they are otherwise termed the Prime and the Second. The strong Fort or Prime

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of the Blade, is measured from the Shell to the middle of the Blade, and being the strongest, is made use of in Parrying, or to put by Thrusts or Blows. The feeble, weak, or second Part is accounted from the Middle to the Point, and is properly made use of in Offending or giving Thrusts or Blows; and thus much may serve for the Description of the Sword: Now I proceed to the Explanation of the Terms, fit to be known by a Practitioner.

A Guard.

This is a proper Posture you must place you self in, for the better defending your self from the Thrusts or Blows of those you Fence with, or defend your self from.

To Parrie.

Observe that this is to put by a Blow or Thrust, that it may not touch you, but be cast off without Hurt or Danger.

Quart.

Here you must hold the Nails of your Sword-hand upwards, with a steady Arm; and then it is said to be held in *Quart.*

Terce.

This is the contrary to the former, for the Nails of your Hand must be held downwards; and then the Sword is held in *Terce.*

Within the Sword.

This is that Part of your Body, which (having your Right-side towards your Adversary,) is between your Sword and Left-breast.

Without the Sword.

This is the part of the Body, that (when you hold your Sword towards your Left-side) is above it the Breadth of your Body.

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The Approach or Advance.

This is done when being out of your Adversaries Reach, or at a pretty Distance from him; you make your Approach or Advance towards him.

To Retire or Retreat.

This is when you are within your Adversaries reach, that you get out of it by stepping or jumping backwards; which you must observe to do on a strait Line.

Measure.

This is only a Distance between you and your Adversary, which must be cautiously and exactly observed when he is thrusting at you; so that you may be without his measure or reach, and that taking the Advantage of this, it may be so, that when you thrust your Thrusts may be home.

To break Measure.

Observe here, just as your Adversary is Thrusting at you, at his first Elonge, he may come short of you, because you are, or escape out of his Measure, or Reach, and so break his Measure, of which I shall say somewhat more hereafter.

To Elonge.

This is to stretch forward your Right-Arm and Leg, and keep a close Left-Foot; and this you do when you give in a Thrust, and when you do it, you are said to make an Elonge.

Respost.

This is when you give in a Thrust before you recover your Body, receiving a Thrust after your Adversary hath Parried your Sword, Then is it said to be a Thrust on the Respost or back of the Parade, which is the surest and safest you can give.

Finishing

rice.

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Feinting or Falsifying.

erfarie
u make

This is a dodging or deceiving your Adversary, making him believe you give back in earnest, and make an Offer to Thrust in one Place when you really design to do it in another.

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en you

Beating.

This is no other than striking the Feeble of your Adversaries Sword with the Edge and Fort of yours, either with your Right-hand only, or the Help of your Left, joined to the Blade, about a Foot from the Hilt; and so you will cause the Beat to have the greater Spring or Force.

rusting
hort of
easure,
I shall

Battery.

The Difference from Beating in this, is only striking with the Edge of the Feeble, upon the Edge of the Feeble of your Adversaries Sword, though Beating secures his Sword a great deal better than Battery.

rm and
you do
do it,

Binding.

This Method is taken to secure your Adversaries Sword, with Eight or Ten Inches of yours, upon Five or Six Inches of his.

re you
er your
it said
Parade,

Caveating or Disengaging.

Here you must, if you can, slip your Adversaries Sword, when you perceive him about to bind or secure yours.

To take Time.

Feinting

In taking Time, you must observe never to Thrust but when you see a fair Opportunity, or otherwise it is the Thrusting at your Adversary when he is making the Feint, or the slipping of him, when you perceive him about to Bind or Beat your Sword.

Counter

To The Noble Science of Defence.

Counter Temps.

This is when you Thrust without a good Opportunity, or when you Thrust, at the same time your Adversary does the like.

Quarting on the strait Line.

This is done by carrying your Head and Shoulders very much back from your Adversaries Sword, and are giving in a Thrust within it, and that each of you at that time receive a Thrust.

Quarting of the strait Line, called de Quarting.

Here you must observe to throw in your Left-foot, and Body backwards off the strait Line, towards your Adversary, keeping your Right-foot firm.

Volting.

This is a leaping by your Adversaries Left-side quite out of his reach or measure, which on many emergent Occasions is very proper.

These Terms a Practitioner must be knowing in before he proceeds to the other Lessons, or Adventures on sharp, especially on earnest; from whence I proceed to the next Thing materially to be considered, which is the

Holding of the Sword.

In doing this according to Art, and to the most Advantage, hold your Thumb on the broad side of the Handle, and your Fingers quite round it; hold it in this manner firm and fast; so that your Adversary, with the least sudden Beat or Twist, may not force it out of your Hand, which the hazard in holding it loosely may occasion to your Damage.

nce. **The Noble Science of Defence. 61**

Of keeping a Guard.

Oppar. The Guards are in general but two; the one in
ne your *Quart* and the other in *Terce*; but again, the *Quart*
Guard is subdivided into two, *viz.* The *Quart* with
the strait Point, and the *Quart* with the Point stoap-
ing near to the Ground.

Shoul. The *Terce* is so likewise divided, that is, the
Sword. *Terce* with the Point higher than the Hilt, and the
each of *Terce* with the Point lower than the Hilt. There is
yet another Guard, that requires you to hold your
Sword with both your Hands; and of these in their
Order.

rtting. *Of the Quart-Guard, with the Point strait.*

r Left. You have two Ways with this Guard to defend
ne, to your self, either by Parrying or using Contraries to
ht-foot what your Adversary plays, as I shall more fully
shew you when I come to discourse of the five Pa-
rades; however, here observe in the strait Guard,
left-side which is most in use, to keep a thin Body, which is
many done by shewing your Right-side to your Adversary,
ing in managing your Feet in a strait Line from him; so
Adven- that for your Right he cannot see your Left-leg, yet
whence set them not too wide, for that will make your Elong
e com the shorter; nor too close, for that will hinder the
firmness of standing; and let the Point of your
Right-foot be turned somewhat outwards from the
strait Line, but the broad Side of your Left must
look towards your Adversary. You are also to sink
with your Thighs, your Left-knee a little more bent
than your Right, which may be done by your lean-
ing somewhat back on your Left-thigh; when you
present your Sword, you must hold it with your
Nails upwards, as has been directed in *Quart*. The
Hilt of your Sword must be as high as your Right-
paw, keeping your Arm a little bent, for the better
and easier pursuing your Adversary; or for the
quicker

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quicker giving in a Thrust : The Point must be towards your Adversaries Right-side, two or three Inches lower than the Hilt, your Left-hand held up as high as your Left-ear, about half a Foot from it, the Palm directly against your Adversaries Face, your Fingers pointing, as it were, towards him.

The Quart-Guard, with the sloping Point.

In this Guard you must stand much straiter than in the former, the Point of your Sword sloping within half a Foot of the Ground, your Hilt as low as your Waste, your Arm bended, and the Nails of your Sword-hand between *Terce* and *Quart* ; here you are also to make use of your Left-hand, and therefore the more readily to do it, you must advance your Left-shoulder almost as far forward as your Right, keeping your Belly in as much as may be ; so that it stands well, and your Breast out, your Left-hand as high as the side of your Head, though about half a Foot from it. This is a very open Guard, yet to those that know not how to pursue it, it is much surprizing. And you may pursue this ;

First, by raising up or gathering your Adversaries Sword.

Secondly, by striking at his Sword, and making half Thrusts at the Body, by which he will be doubtful when you intend to give in your Thrust, and finding an Opportunity give it home, and ever when you pursue this Guard, let your Left hand be in a Readiness to Parrie your Opponent's Thrust, if he Thrust just as you are Thrusting, which is the main Defence on this Guard.

Thirdly, you may give a Stroak at his Left-hand, after you give a Beat at his Sword, and see if by so doing, you can force him to betake himself to another Guard.

Fourthly, you may Volt, and in your so doing, give him the Thrust, which being clearly done, will mainly surprize him.

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*The Terce-Guard, with the Point higher than
the Hilt.*

In this you must hold the Nails of your Sword-Hand downwards, as in *Terce*, and your Hand lower than in the *Quart-guard* with a strait Point, presenting the Point of your Sword towards your Adversaries Left-Shoulder, if he be a tall Man, but if short, then to his Left-Eye, keeping your Arm somewhat bent, for the better pursuing: Lean therefore a little forward with your Body, and make use of your Left-Hand for a Parade, holding it somewhat lower than in the former Guard. The rest of your Body being kept, as in the *Quart-guard*, with the strait Point.

This Guard may be pursued either with Striking, Binding, Volting, or Passing; for a Feint on this Guard will signifie little or nothing if your Adversary understand it: for as in no Guard, he is to answer Feints, least of all in this, the Right Defence being to secure your self without your Sword, which is done by presenting your Sword to the Left-Shoulder of your Adversary, or as said, his Eye, so that your Body be quite covered without your Sword.

*The Terce-Guard, with the Point lower than
the Hilt.*

Here you must in this bow your Head, holding up your Arm high, so that if you come to give a Thrust, your Head may be, as it were, under it, your Nails being in *Quart* till you make your Thrust, and then change them into *Terce*; your Feet must be kept at their due Distance, and not as at a full Elonge; your Sword must be presented towards your Adversaries Left-side, and you must make use of your Left-hand for the Parade, and it is to be pursued and defended, as the foregoing *Terce-guard*, only in defending it,
you

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you must not make so much use of your Left-hand but more of your Sword.

The Guard of both Hands.

This is a Guard, that I find not any proper Name for, though it is sometimes used as very necessary; however, as to the holding your Sword in this Guard, keep your Body exactly in the Posture of the Quart Guard, with the strait Point, but join your Left-hand to your Sword, about Eight or Ten Inches from the Hilt, the Blade being held between your foremost Finger and Thumb, secure your self with in your Sword, as soon as you present it, viz. Present the Point towards your Adversaries Right-thigh, with your Point sloping towards the Ground a little; for to pursue this Guard, you must endeavour to take away your Adversaries Left-hand, by striking at it, and immediately after the Stroke, proffer a Thrust at his Body, that he may be doubtful when you really intend to give in your Thrust; and indeed the Pursuit is much like that of the Quart Guard, with the sloping Point; and thus much for the five sorts of Guards.

Of the several Parades.

The Parades are generally Two, but are subdivided as the Guard, and those Two are the Parade in Quart, and the Parade in Terce, which are, as is said, divided again into the Parade in Quart, with the Point a little higher than the Hilt. The Parade in Quart, with the Point sloping towards your Adversaries Right-thigh, and as though without it.

2. The Parade in Terce, with the Point a little higher than the Hilt, and the Parade in Terce, with the Point sloping towards your Adversaries Thigh on the Left-side.

There is yet another Parade of some use, and used by many Fencing Masters, which may be properly termed

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termed a Counter-Caveating Parade; by reason whatever Lesson your Adversary makes use of, or upon what side soever he Thrusts, if you make use of this Parade, as you ought, you will undoubtedly meet with his Sword, and the easier cross his Purpose, than by any of these former; and of these I shall give proper Directions.

1. The Quart-parade, or the Parade within the Sword, is so called, because in putting by the Thrust, you do it on the inside your Sword, or on that side the Nails of your Hand are next,

2. The next is called the Terce Parade, or the Parade without the Sword; for here, contrary to the former, you put by the Thrust upon that side which is without the Sword, and as the other is termed the Quart, for as much as it is within your Sword, or on that side your Nails look to; so this is called Terce, because it is without your Sword, or on that side the back of your Hand is to. Observe a little more, viz. when you are to hold your Hand or Nails in Terce, that you hold your Nails quite downward; and now to parrie these Five several Ways,

You must do the first Parade in Quart, with the Point somewhat higher than the Hilt, viz. When you are standing to your Guard, if your Adversary offers to give a home Thrust on that side his Sword lieth, which I presume to be within your Sword, without disengaging, and is the simplest and plainest Thrust that can be given with the small Sword; yet frequently it surprizes a Man, I say, when so it is, that when you perceive your Adversary offer to give a home Thrust, which observe by keeping your Eye steady on the Hilt of his Sword, you must then immediately turn your Wrist with so small a Motion of the Arm, that it can scarcely be perceiv'd, to your Left-side; and by that Means you may put by his Sword with the Fort of yours upon the Left-side, keeping

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keeping the Point of your Sword after the Parade towards his Right-shoulder ; you may in putting your Adversary's Sword, use a little beat or spring towards the Ground, by which you will more certainly disappoint him, immediately bringing your Sword to its right Posture again, and by this way of Parrying, you may have the Luck to spring beat your Adversary's Sword out of his Hand.

The second Parade in Quart is with the Point sloping towards your Adversaries Right-thigh, and as tho' without it, in this manner.

When you perceive your Adversary is thrusting with your Sword, turn the Nails of your Sword-hand in Quart, with a full stretch'd Arm, and your Hand as high as your Face, and when you do this slope your Point to the lowness of your Adversary's Thigh ; and by that Means, with the Fort of your Sword, on the Feeble of his, put by his Thrust always observing to parrie with the Fort of your Sword, and not the Feeble, lest your Adversary having the stronger Arm, force upon you the Thrust in spite of all you can do.

The first Parade in Terce, or without the Sword the Point a little higher than the Hilt, must be thus managed, *viz.* Perceiving your Adversary giving the Thrust without your Sword ; take Notice immediately to turn your Wrist with some small Motion of the Arm, as in the first Parrie in Quart, till your Nails be in Terce, and parrie his Thrust, remembering in this to keep the Point of your Sword, after you have parried him towards your Adversaries Left-shoulder, as in the first Parade in Quart, you are to keep it towards his Right.

This Parade is most effectually done with a Spring without to put by the Sword, or gain an Advantage of disarming your Adversary.

The second Parade in Terce, is called that within the Sword, bearing a sloping Point towards your Adversaries

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adversaries Thigh, and as though within it. This observe to do when you perceive your Adversary giving in his Thrust, without, or below your Sword, as if it were at your Arm-pit, immediately letting the point of your Sword sink as low as his Thigh, turning your Nails quite round to your Right-side, until they are from you, keeping your Hand as high as your Head, and so put by the Thrust on your Right-side; and when you are Parading, let your Head be close, as if it were under your Arm; and this preserves your Face from your Adversaries scattering or counter-Temps Thrusts.

Thus having shewn you the Defensive-part, I shall now proceed to the Offensive, or how you may offend your Adversary when Necessity requires it; but before I directly enter upon it, let me speak something of the Counter-caveating Parade; though some there are who refuse to use it, yet it is the safest of all.

The Counter Caveating Parade. &c.

When you observe your Adversary's Thrust coming home within your Sword, then immediately slope your Point, and bring it up again with a quick Motion on the other side of your Adversary's, and parrie his Thrust without your Sword, that he intended to give within your Sword, holding your Nails neither in Tercé nor in Quert, but so hold them, as when you presented your Sword; and observe far enough to do this, parade with a Spring, and if you perceive he is about to give in his Thrust without your Sword, instantly slope your Point, and bring it up again with a quick Motion upon the inside of his Sword, and so parrie his Thrust, that was to be given without your Sword, within your Sword, and if you do this very quick, you will rarely be hit with a Home Thrust; and in this Parade there is great Advantage, because by it all Feints, which in other Parades, cannot be so well noted or shunned, are by this baffled and confounded.

Lessons

Lessons Offensive. 1. Of Approaching
or Advancing.

Observe here, (when you are standing to your Guard and your Adversary without your Measure) so that without Approaching you cannot reach him, that you lift your Right-foot about a Foot forward and presently let your Left-foot follow close by the Ground, your Left-knee a little bowed, taking Notice at the End of every Step, that your Feet be at the same equal Distance as when you first presented your Sword, or if in any thing you vary, let it be in bringing them something nearer; and so your Elonge will come as much nearer to your Adversary as you brought your Left-foot nearer to your Right. Always then remember to redouble this Step, or any other that is to be used on this Occasion, till you think your Adversary is within your Measure. This Step must be always made on plain Ground, lest you trip and fall, which is very dangerous; but if it be on rugged uneven Ground, there is another suitable to it, called the Double-step, after this manner:

In the first place throw your Left-foot behind your Right (which may be done by raising your Body a little on your Right-foot) about a Foot, then bring your Right-foot forward again, as far before your Left, as when you presented your Sword; these two Motions must be done immediately after the other, or else doing of this Step will appear ungraceful; and here you must keep as thin a Body as possible, because the throwing your Left-foot before your Right lays your Body open, and so redouble this Step, as the former, according to the Distance you are from your Adversary, till you approach within his Measure.

Lesson

Lesson 2. Of Retiring.

ching This may be done three Ways, first with the single
to your Step, the same Way you approach with it, only
Measure whereas in approaching with the single Step you lift
each his your Right-foot first, here you must lift your Left-
forward foot first, and the rest observe, as in the Approach
by the with the single Step.

The second is, that with the double Step, and
ing No done the same Way as in the Advance, only in
et be approaching you throw your Left-foot before your
esente right, when in retiring you must throw your Right-
et it foot backward behind your Left, and the rest is done
so you in Advancing with the double Step.

The third is done by a sudden Jump backwards
ersary in the strait Line, with both your Feet in the Air
Right once, but you must lift your Right-foot first, and
step, after your Jump is done, stand to your Guard again,
on, the unless you find occasion to redouble your jump to
measure be farther out of reach.

Lesson 3. Of giving in the Thrust.

erous To Thrust or make an Elonge, observe (when you
here in stand to your Guard, and your Adversary be within
p, after your Measure) that your Sword be as you please,
and your either within or without your Adversary's Sword,
Body, and suppose within, then stretch out your Right-arm,
in bring and step forward with your Right-foot as far as may
e your be, keeping the Point strait forwards, and let the
ese two Motion of your Arm begin a thought before you
other move your Foot, so that the Thrust may be given
l; and some before your Adversary can hear your Foot touch
because the Ground; and when you are at your full stretch,
Right keep your Left-hand stretch'd, and ever observe to
step, a keep a close Left-foot, which must be done by keep-
u are ing your Left-heel and Broad-side of your Foot close
in his to the Ground, without any drawing it after you;
Lesson for keeping a close Foot is one of the chiefest Things
 to

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to be observed in this Science. When you give your Thrust, throw your Left-hand behind you, so place it on your Left-side, that your Sword and both your Arms may make a strait Line from your Adversary. This must be, when you design not to make use of your Left-hand for a Parade; but if you do, then in the very Time of giving in your Thrust, throw your Left-arm forward as far as you can without putting the rest of your Body into Disorder, turning the Palm from you, by turning your Thumb down, and your little Fingers up, and so parrie your Adversaries Thrust, if you find he will Thrust, upon the same time you make your Thrust, always remembering when you Thrust within the Sword, to do it with your Nails in Quart or upwards, and Quarter well your Hand and Shoulder; but when a Thrust is made without the Sword, then give it in with your Nails in Terce or downwards, and keep your Hilt much lower than your Point, and your Head as clear as may be from your Adversary's Sword.

Take notice in all Lessons in which you do not first secure or bind your Adversary's Sword, that you are to Thrust close by the Feeble of his Sword, with the Fort of yours. But there is a Difference when you first secure your Adversary's Sword; for after your securing or binding, you quit his Sword, and give a strait home Thrust, without touching it after it is bound.

In these Rules there is great Advantage, as in the Quaring of your Hand, when you Thrust within the Sword, preserves them from your Adversary's Counter-temps Thrusts in the Face; so likewise does your Thrusting close by the Feeble of the Sword, and keeping your Hilt lower than the Point, when you Thrust without the Sword, as also the holding of your Head to the contrary side your Adversary's Sword is on, preserve you from Counter-temps, ever observing as a general Rule, to keep your Head

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give the contrary side of your Adversary's Sword, on
ou, that side soever you Thrust, for this will frequently
ord and reserve your Face from being hit.

Lesson 4. Of Caveating or Disengaging.

if you In this Case, when your Sword is presented within
Thrust your Adversary's Sword, and you would have it
u can without (keeping your Nails in Quart) slope your
sorder point so low, that you may bring it up under the
Thumb outside of his. This must be done with the Wrist,
e you and not any Motion of the Arm, because when you
, upon Disengage, if the Arm move, your Body would be
ays re so much discovered; so that your Adversary would
rd, have an Advantage to give in his Thrust, which he
Quart could not do if only your Wrist moved; and this
Thrust must be done with a sudden Motion; and by this
h you you may learn to slip your Adversary's Sword at
ur Hip before.

Lesson 5. Feinting or Falsifying.

do not Of these there are several Kinds. and the first I
at you eat on, is the Ordinary single Feint: When you are
d, with in your Guard, and within your Adversary's Sword,
e when Disengage and make your Feint without, which you
or after must do with a beat of your Right-foot against the
d, and ground, just as you disengage, and your Sword on
t after the outside of your Adversary's, and immediately
ter, if you perceive him answer your Feint, and
ffer to parrie, disengage again, and give him the
thrust within the Sword.

Lesson 6. The double Feint.

Sword, There is a Difference between this and the single
when Feint; for in the single one you must make two
holding Motions, viz. With the first you make your Feint,
erfary and with the next you give in your Thrust, unless
temp. you make your Feint on that side your Sword lyeth,
r Head which

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which may be done without disengaging, and is the simplest of all others in all single Feints, it must be given in upon the side your Sword was before you made your Feint : But in the Double-Feint, you are to make Three Motions, and the Thrust (unless when you make your first Motion on that side your Sword was presented) is given in on the other side, and not on the side the Sword was just before you began to make your Feint ; and to play this, there are two Ways, *viz.* When you are within Measure, you must play it one Way, and without Measure another Way.

As to the first, your Sword being presented within your Adversary's Sword, then disengage and make your first Motion without his Sword, so stand a thought on it to try whether he will answer you, by offering to proceed to the Parade ; if he do not answer, it is useless ; but if he do, then presently make your second Motion within his Sword, and your third Motion without it, by giving the Thrust ; both these Motions must be done with admirable Quickness ; at every Motion give a Beat with your Foot, and disengage, turning your Nails in Quart.

If you are without Distance, make a Motion to see if he will answer your Feint, and if he do begin again, make your first Motion, as within Distance, approaching at the same Time, and so your second and third.

There is a contrary to these, that is to be observed when your Adversary make use of them against you. Then you must make use either of the Counter-Caveating Parade, or keep your Sword Point immovable towards his Face that opposes you, your Arm as much stretched out as possible ; and when you do so, you must recover your Body, by drawing your Right-foot close to your Left, stand as it were on Tip-toe, and if for all this your Adversary give a home Thrust, then you must Counter-temps him in

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the Face, and Parry his Thrust with your Left hand ; or if you perceive him make variety of Feints, then upon every one of them make a half Thrust, which will oblige him to betake himself to the Parade, and so when you please you may take the Pursuit ; or when he makes variety of Feints, give a plain Homethrust, as smart as may be, and endeavour to defend your self from Counter-temps with your Left-hand, and to prevent them, it is always in this Case best when you give a Thrust, to use your Left-hand.

Lesson 7. *The single Feint at the Head.*

Being within Distance, you may present your Sword within or without your Opponent's Sword, making a Feint or Motion at his Face, if your Sword be presented without, by a little stretching out your Right-arm, your Nails in Quart, and when you make the Motion, give a little Beat with your Right-foot, and if the Feint be answered, then immediately give in your Thrust at his Arm-pit, your Head under your Sword-arm, your Left-hand held before you, with the Palm of it looking towards your Right-side, and that Part of your Arm from the Points of your Fingers to your Elbow, must stand in a manner strait upwards, which Posture you must ever observe when you give in this Thrust, because in doing it, it defends you from the Thrust of your Adversary, if it be above, and without your Sword ; and you may at the same Time make a Motion at his Face.

Lesson 8. *Of the double Feint at the Head.*

Being within Distance, make your first Motion or Feint, as before, at the Face, your second Motion low, without your Adversary's Sword, towards his Belly ; and with the third, give a Thrust without, and above his Sword, your Nails in Quart, marking every Motion with your Head, Hands and Feet ; and

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when you make your second Motion, hold your hand as in the single Feint, and when you give in your Thrust above Sword, you must Quart your Head well, because you must give it in with your Nails in Quart; and by this Means, your Body will be kept secure within your Sword, when in Terce it would lie open, especially to Counter-temps.

There is a Parrying the contrary, either with the Counter-caveating Parade, or by answering every Motion, by what Means you will fall to Parry your Adversary's with the first Parade in Terce.

Lesson 9. *Containing the manner of the Feint at the Head on the true Parade.*

The contrary to the second Parade is this, and to do it, you must make your Motion at your Adversary's Face, and if you imagine he intends to Parry you with the second Counter-caveating Parade, make round his Sword, as it were, going a Circle about it, and so give a Thrust at his Arm-pit, and with your Left-hand avoid Counter-temps; and being within Distance, approach with your first Motion, and in so doing you Caveat his Sword and shun his Parade, or if your Adversary follows your Sword, you may make two or three Circles, 'till you find a fit time to see in your Thrust.

Lesson 10. *Of the low Feint.*

When you intend to proceed in this, you must have your Sword without your Adversary's, and when it is so, make directly the second Motion of the double Feint at the Head, and give in the Thrust above, and when you are without Distance, make your approach with the Feint, or first Motion, and make in your Thrust with the second. And this may be Parry'd, by answering every Motion, or using the Counter-caveating Parade.

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The contrary to it, is, when your Adversary is making his low Feint, to take time, and give in the Thrust above his Sword, your Nails in Quart.

Lesson 11. Of Battery.

This is a kind of a Beat from whence it derives its Name, and therefore when you play it, you must present your Sword either without or within your Adversary's, if within, and he within your Measure, then keep your Sword half a Foot from his, and when you intend to play, strike a small Stroak on the Edge, and Feeble of your Sword on the Edge, and Feeble of his, and at the same Moment give a Beat with your Foot, which will surprize your Adversary, if not well skill'd ; if it does not, nor that he answers you by offering to parrie, give a strait home Thrust at his Right-pap, as you give in a plain Thrust within the Sword, moving the Sword only with your Wrist, and thereby keeping your Body close. If your Adversary offers to answer your Stroke, and go to the Parade, then your best way is to slip him, and give in a Thrust without, and above the Sword, or when you perceive him going to Parade, then suddenly slip, and make a double Feint on the other side, and thrust on that side you gave the Beat.

In the contrary of this Parrie, with the Counter-caveating Parade, or meet his Stroak, and make a half Thrust, which will force him to the Parade, and so you may pursue.

Lesson 12. Of Volt-Compe.

In this observe to present your Sword within your Adversary's, he being within your Measure ; then make a Feint at the Face, your Nails in Quart, and upon this give a beat with your Foot, and carry your Hand well Quartered, and if by offering to parrie, he answers this, and that high, then Thrust at the Belly, your Nails in Terce, and keep your

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Left-hand as a Guard from Counter-temps ; if by Parrying low, you are disappointed of this Advantage ; then after you have made your Feint, instead of a Thrust in the Belly, slip his Parade, and give the Thrust without, and above the Sword ; and when you are within Distance, approach with the first Motion : If your Sword be presented without your Adversary's, you must first then disengage.

The contrary to this is either to Parry his Sword with the second Parade in Quart, or to take Time, and give your Thrust the Way he was to give it in upon you, at the Instant he makes his Motion at your Face, or you may pass without his Thrust.

Lesson 13. Of Binding your Adversary's Sword.

This is the securest Play, and chiefest Mystery in the Art of Fencing, wherefore to do it after you have presented your Sword, either within or without your Adversary's, on a sudden over-lap six or seven Inches of his with eight or ten of yours ; and this is sufficient to secure it ; but this must be always done with the Edge of the Sword, whether you present it within or without, and immediately after you have bound it, give a Thrust strait home. In this Case, always observing to keep a close Left-foot ; also to give a Beat with your Foot, and to bind with a Spring, viz Press your Sword almost to the Ground, but stay not with it, but immediately bring it up again, and then give the Thrust ; and this prevents Counter-temps, and the best Parade against it is, the Counter-caveating Parade, and if your Adversary slips your Sword, you must endeavour to bind him within or without the Sword again. You may also put upon him the double or single Feint, or having bound your Sword without, you may give in your Thrust, as in playing the single Feint at the Head.

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Lesson 14. Of the Flancanade.

To do this, when you have presented within your Adversary's Sword, over-lap it with 12 Inches of yours within 8 of his, and give in the Thrust on his Right-flank, on the other side of the Sword, and beneath it your Nails side-ways, throwing forward your Left-hand, and turning the Palm from you, to keep off Counter-temps in the Belly, and in Thrusting, let your Hilt be lower than the Point, which secures his Sword; and note, when you lap over to do it with the Flat, and not with the Edge, as when you bind.

And thus much may serve for an Introduction to the Learner in the *Science of Defence*, and therefore for other Lessons, not here set down, I refer him to a Master.

Of HAWKING.

Of Hawks there are two Sorts.

The Long-Wing'd Hawks.

Faulcon and Tiercle gentle.

Gerfaulcon and Jerkin.

Saker and Sakaret.

Lanner and Lanneret.

Barbary Faulcon.

Marlin and Jack.

Hobby and Jack.

The Short-Wing'd Hawks.

Eagle and Iron.

Goshawk and Tiercle.

Sparrow-Hawk and Musket.

There are other two of inferiour sort, as
Ring-Tail.

Raven and Buzzard.

Forked Kite. Hen-Driver, &c.

And as the Age of these Hawks is, so we name them, as,

The first Year a *Soarage*.

The second Year an *Intermewer*.

The third Year a *White-Hawk*.

The fourth Year a *Hawk of the first Coat*.

Thus much for their Names, now we come to speak of the Flights of these Hawks; which are these.

The *Faulcon-Gentle*, for *Partridge* or *Mallard*.

Gersfaulcon will fly at the *Hern*.

Saker, at the *Crane* or *Bittern*.

Lanner at the *Partridge*, *Pheasant* or *Choofe*.

Barbary Faulcon, at the *Partridge* only.

Merlin and *Hobby*, at the *Lark*, or any small Bird.

Goshawk and *Tiercle*, at the *Partridge* or *Hare*.

Sparrow-Hawk at the *Partridge* or *Black Bird*.

And the *Musket* at the *Bush*.

Your Hawk watch, and keep from Sleep, continually carrying him upon your Fist, familiarly stroak him with a Wing of some dead Fowl, or the like, and play with him: Accustom to gaze, and look in his Face with a Loving, Smiling, Gentle Countenance; and that will make him acquainted and familiar with Men.

Having made him familiar, the next thing is to Bring him to the Lure, (which the *Falconer* makes of Feathers and Leather, much like a Fowl, which he casts into the Air, and calls the Hawk to) which is after this manner. Set your Hawk on the Perch, unhood him, and shew him some Meat within your Fist, call him by *Cherripping*, *Whistling*, or the like, till he comes, then feed him with it; if he comes not, let him fast, and be sharp set: *Short-wing'd Hawks*, are properly said to be called, not *Lured*. Make him bold, and acquainted with Men, Dogs and Horses, and let him be eager and sharp set, before you shew him

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him the *Lure*, knowing his *Luring Hours*; and let both sides of the *Lure* be garnished with warm and bloody Meat; let him likewise know your Voice well; so that being well acquainted with Voice and *Lure*, the Hearing of the one, or Sight of the other, makes him Obedient; which you must reward by Feeding, or punish by Fasting. But before *Luring* (or any Flight) it is requisite to Bath your *Hawk* in some quiet and still shallow Brook, or for want of that, in a large Bason, shallow Tub, or the like, lest being at Liberty, you lose your *Hawk*, (whose Nature requires such Bathing) and make him range. Now to make him know his *Lure*, is thus: Give your *Hawk* to another, and having loosened in Readiness his Hood-strings, and fastened a *Pullet* to the *Lure*, go a little Distance, cast it half the length of the String about your Head, still *Luring* with your Voice, unhood your *Hawk*, and throw it a little way from him; if he stoop and seize, let him plume the *Pullet*, and feed on it upon the *Lure*: Then take him and Meat on your Fist, Hood him, and give him the Tiring of the Wing, or Foot of the said *Pullet*.

Having Manned and Lured your *Hawk*, before you bring him to his Flight, one thing is to be observed and done, called in the *Faulconers Dialect*, *Enscaming*, which is to cleanse him from Fat, Grease, and Glut, known by his round Thighs, and full Meatings; and thus you may do it: In the Morning, when you feed him, give him a bit or two of hot Meat, and at Night very little or nothing. Then feed him Morning and Evening with a *Rock*, wash'd twice 'till the Pinions be tender; then give a Casting of Feathers as his Nature will bear; and once in two or three Days give him a Hens Neck well jointed and wash'd: Then a quick Train *Pigeon* every Morning; and after by these and his own Exercise, he has broken and dissolved the Grease, give him three or four *Bellets* of the Root of *Cellandine*, as big as Garden-

Pease, steep in the Syrup of *Roses*; and you have done this part of your Duty.

To enter your *Hawks*, for *Partridge* Fowl, lay an old old Field *Partridge* in a Hole, covered with something, and fasten to it a small *Creance* (*i. e.* a fine small long Line of strong and evenwounded Packthread fastened to the *Hawk's* Leash when first Lured) and uncoupling your ranging Spaniels, pluck off the covering of the Train *Partridge*, and let it go, and the Hawk after it; and as soon as he has slain it, reward him well with it. And thus to make him fly at Fowl, feed him well with the Train of the Fowl you would have; doing afterwards as above.

The Fault of *Hawks* differ according to their Nature and Make. Long-wing'd *Hawks* Faults are thus helped. If he used to take stand, flying at the River, or in Champaign Fields, shun flying near Trees or Covert, or otherwise, let several Persons have Trains, and as he offers to stand, let him that's next cast out his Train, and he killing it, reward him. And indeed you ought never to be without some live Bird or Fowl in your Bag, as *Pidgeon*, *Duck*, *Mallard*, &c. If he be froward and coy; when he kills, reward him not as usually, but slide some other Meat under him, and let him take his Pleasure on it; giving him some Feathers to make him scour and cast.

If he be *Wild*, look not inward, but mind Check, (*i. e.* other Game, as Crows, &c. that fly cross him) then lure him back, and stooping to it, reward him presently.

The Faults of Short-wing'd *Hawks* thus are helped. Sometimes the *Goshawk* and *Sparrow-Hawks*, will neither kill nor fly the Game to Mark, but will turn Tail to it: Then encourage your Dogs to Hunt, cast a Train *Partridge* before your *Hawk*; make him seize it, and feed well upon it.

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If a Hawk take a Tree, and will not fly at all, feed him then upon quick Birds, and make him foot them, and in the plain Champaign Fields tinhood him, and riding up and down a while, let one cast out a field Partridge before him, let him fly at it, and footing it, feed on it. If he be too fond of a Man, that after a Stroke or two will not fly, be seldom familiar with him, and reward him not as he comes so improperly : Otherwise reward him well.

As for *Mewing* of *Hawks*, the best Time for Long-Wing'd *Hawks* is about the Middle of *April*, and *March* for the Short-Wing'd *Hawks*. There are two kind of *Mewings*. 1. *At the Stock or Stone*; so called from its being low upon the Ground, free from Noise, Vermin, or ill Air. 2. *At large*; so called from being in a high Room, with open Windows towards the North or North-East. The former is accounted the best *Mewing*. The Faulconer before he *Mews* his *Hawks*, see if they have Lice, to pepper and scower them too. The best Time to draw the field Hawk from the *Mew* is in *June*, and he will be ready to fly in *August*; the *Hawks* for the River in *August*, will be ready in *September*.

Cures for *Hawks* Diseases.

The Faulconer ought diligently to observe the Complexions of his *Hawks* Castings or *Mewings*, to judge of their Maladies, an assured Sign of knowing whether they are sick or distempered in this. Take your *Hawk*, turning up her Train, if you see her Tuel or Fundament swelleth, or looketh red; or, if her Eyes or Ears be of a fiery Complexion, it is an infallible Sign of her being not well and in good Health; and then Scouring is necessary first; which is done by *Aloes Succatrine*, about the Quantity of a Pea wrapt up in her Meat; and this avoids Grease, and kills Worms too.

For the Cataract, Take one Scruple of wash'd *Aloes* finely beaten, and two Scruples of Sugar-Candy, mix

these together, and with a Quill blow it three or four times a Day into your *Hawk's* Eye.

Pantus or *Askema*, Pour the Oil of sweet *Almonds* into a Chicken's Guts, well washt, and give it the *Hawk*: Or, scower him with *Sallandine*-Pellets, and Oil of *Roses*, and then wash his Meat in the Decoction of *Coltsfoot*.

Filanders or *Worms*, To prevent them, seeing your *Hawk* low and poor, give her once a Month a Clove of *Garlick*. To cure or kill them; Take half a dozen Cloves of *Garlick*, boil them very tender in Milk, dry the Milk out of them, put them into a Spoonful of the best Oil of *Olives*, and having steeped them all Night, give them both to your *Hawk*, when she was cast, in the Morning: Feed him not till two Hours after, and then with warm Meat, and keep him warm all that Day.

Lice: Mail your *Hawk* in some Woollen-cloth; put between his Head and Hood a little Wool, and take a Pipe of Tobacco, put the little end in at the Tream, blow the Smoak, and the *Lice* that escape killing, will creep into the Cloth. *Probatum*.

Formica, Take a little of the Gall of a Bull, and beating it with *Aloes*, anoint the Beak of the *Hawk*, Morning and Evening.

Frounce, Take the Powder of *Allom*, reduced to a Salve with strong Wine-Vinegar, and wash her Mouth with it; then take the Juice of *Lolium* and *Raddish*, mixt with Salt, and anoint the Sore.

Appoplex, Gather the Herb *Asterion*, wash your *Hawk's*-meat with the Juice thereof when you feed him.

Wounds, Take the Juice of *English Tobacco*, or *Moufe-ears*, after you have slitcht it up with a little Lint, bath the Place,

Of B O W L I N G.

THE first and greatest Cunning to be observ'd in *Bowling*, is the right chusing your Bowl, which must be suitable to the Grounds you design to run on: thus, For *close Alleys*, your best choice is the *Flat Bowl*. 2. For *open Grounds* of Advantage, the round *Byassed Bowl*. 3. For *Green Swarths*, that are plain and level, the Bowl that is as *Round as a Ball*.

The next thing requires your Care is, the chusing out your Ground, and preventing the Windings, Hangings, and many turning Advantages of the same, whether it be in open wide Places, as Bares and Bowling-Greens, or in close Bowling-Alleys.

Lastly, Have your Judgment about you to observe and distinguish the Risings, Fallings, and Advantages of the Places where you Bowl: Have your Wits about you to avoid being rookt of your Money: And have your Understanding about you, to know your best Time and Opportunity for this Recreation; and finally a studious Care of your Words and Passions. and then bowl away; and you may deserve, *Well have you bowled indeed.*

But methinks I cannot conclude here, without admiring how aptly a Bowling-Green is by the Divine *Quarles* characterized, in the following Verses, thus,

*Brave Pastime, Readers, to consume that Day,
Which without Pastime flies too swift away!*

*See how they Labour, as if Day and Night
Were both too short to serve their loose Delight!*

*See how their curved Bodies wreath, and skue
Such Antick-Shapes as Proteus never knew!*

*One rapps an Oath, another deals a Curse,
He never better bowl'd, this never worse;*

One rubs his itcheless Elbow, shrugs and laughs,
 The t'other bends his Beetle-brow, and chafes.
 Sometimes they whoop, sometimes the Stygian cries,
 Send their black Santo's to the blushing Skies:
 Thus mingling Humour in a mad Confusion,
 They make bad Premisses and worse Conclusion.

Thus much for Bowling.

Of T E N N I S.

THIS Recreation is of the same Date for its Antiquity of Invention with Bowling, and for the Violence of its Exercise to be preferred before it. This Sport indeed is of so universal an Acceptance, that Majesty it self is pleased to design it its Recommendation, by tracking its laborious Steps; and Princes and Lords admire it too for the most proper Recreation, to suit with Innocence and true Nobility. Here the Body is briskly exercised more than ordinary, and inured in Agility and Nimbleness; this renders the Limbs flexible and mettlesome, and adapts them for the most vigorous Enterprize.

Tennis and Baloon are Sports which are play'd almost with the same Instruments; and therefore may be under one and the same Head: The first is a Pastime, used in close or open Courts, by striking a little Round Ball to and fro, either with the Palms of the Hands (and then is called *Pila palmaria* in Latin) or else a Racket, made for the Purpose, round with Net or Cat-Gut, with a Handle: The other a strong and moving Sport in the open Fields with a great Ball of double Leather fill'd with Wind, and so driven to and fro with the Strength of a Man's Arm, armed in a Brace of Wood. And thus much shall suffice to speak of the Baloon and

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Tennis ; only let me desire you, let not this or any other Pastime disturb your Minds ; divert you from the diligent and careful Prosecution of your own lawful Business ; or invite you to throw away your Time and Money too lavishly and idly ; nor engage you in any Passion ; that so you may not offend God, dislike your Neighbour, nor incommode your Self and Family in your Well-being and Felicity ; and then you may recreate your self without Fear : And in this Recreation observe the ensuing Morality of

The Tennis-Court.

*When as the Hand at Tennis plays,
And Men to Gaming fall,
Love is the Court, Hope is the House,
And Favour serves the Ball.*

*This Ball it self is due Desert,
The Line that measure shews
Is Reason, whereon Judgment looks,
Where Players win and lose.*

*The Tutties are deceitful Shifts.
The Stoppers, Jealousy,
Which hath Sir Argus hundred Eyes,
Wherewith to watch and pry.*

*The Fault whereon Fifteen is lost,
Is want of Wit and Sense,
And he that brings the Racket in
Is Double-Diligence.*

*But now the Racket is Free-Will,
Which makes the Ball rebound,
And noble Beauty is the Choice,
And of each Game the Ground.*

*The Racket strikes the Ball away,
And there is Over-sight,
A Bandy ho ! the People cry,
And so the Ball takes Flight.*

Now

*Now at the length Good-liking proves,
Content to be their Gain:*

*Thus in the Tennis-Court, Love is
A Pleasure mixt with Pain..*

Of R I N G I N G.

WHosoever would become an accurate Master of this excellent Art and Pleasure, and is very desirous to be esteemed an Elaborate and Ingenious Ringer, and be enrolled amongst that honoured Society of *College Youths*; I must beg Leave to instruct him before he enters the Belfrey, in these ensuing short Rules, which he must strictly observe, *viz.*

1. That, as all *Musick* consists in these six plain Notes, *La, Sol, Fa, Mi, Re, Ut*; so in *Ringing*, a Peal of Bells is Tuned according to these Principles of *Musick*: For as each Bell takes its Denomination from the Note it sounds, by its being flatted or deeper, as *First*, or *Treble*, *Second*, *Third*, *Fourth*, &c. as they are in number to ten or Twelve Bells, the last being called the *Tenor*: So must they successively strike one after another, both *Fore-stroke* and *Back-stroke*, in a due Musical Time or Equi-distance, to render their Harmony the more pleasant, and to make the young Practitioner the better informed to observe the *Life of Musick*, and indeed of true *Ringing, Time*; and therefore is called, *Round-ringing*.

2. As in *Musick*, so in *Ringing* there are three *Cords*, so called from their Melodious Harmony and Agreement, which Principally are these; *Thirds viz.* 1 3, 2 4, &c. *Fifths* 1 5, 2 6, &c. *Eights* 1 8, 2 9, 3 10, &c. and these are the more pleasant according to the Number of Bells they are struck on, and as they are struck, whether separately or mutual

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ally. From hence *Changes* are made, which is only a Changing place of one *Note* with another, so variously, as Musick may be heard a thousand ways of *Harmony*; which being so obvious to common Observation, I shall not go about to demonstrate; for that if two may be varied two ways, surely by the Rule of *Multiplication*, a Man may easily learn how many times, 6, 7, 8, 9, 10, or 12 Bells *Notes* may be varied, which will run almost *ad infinitum*.

3. For the better observing the Ringing of *Changes* or *Rounds*, these three things are to be noted.

1. *The Raising true in Peal.*

2. *Ringin at a low Compass*; and

3. *Ceasing in true Peal*: All which three are the most essential Parts to render a Practitioner *Excellent*.

1. For *Raising a Peal of Bells true*, the modern and best Practice recommends the *swiftest and quickest possible*, every one taking Assistance to raise his Bell, as its going requires; the *lesser Bells* as *Treble, &c.* being by main Strength *held down* in their first Sway (or pull) to get time for the striking of the rest of larger Compaſs; and so continued to be strong pulled till Frame-high, and then may be slackned: The bigger, as *Tenor, &c.* must be pincht, or checkt over head, that the *Notes* may be heard to strike roundly and handsomely. Observe that all the *Notes* strike round at one Pull: I do not mean the first; but 'tis according to the Bigness and Weightiness of your Bells: However, in raising a Peal, do not let one Bell strike before the rest, or miss when the rest do; this is contrary to the strict Rules of *true Ringing*: And this is called *Round-ringing*. Now, if you design to raise a Peal of Bells for *Changes*, you ought to raise them to a Set-pull, as the most proper for commanding the *Notes*, and he who is not well skilled to manage his Bell at a set pull, will be apt to drop or over-turn it, be in a Wood, and fruitlessly toil and moil himself. Therefore in practising the Setting

Setting of a Bell, cast your Eye about the other Bell-Ropes, during your managing your own, that you may accustom your self to manage it according to the *Change*.

2. For *Ringing at a low Compass*, is thus observed: By keeping a due *punctum* or beat of time, in the successive striking one after another of every Bell; the best Ringer being set to the *Treble*, that may guide and direct the rest of the Notes in their due Measure.

3. For *ceasing a Peal of Bells*; let them fall gradually from a set Peal, checking them only at Sally, 'till the low Compass renders it useless; and when so low, that for want of Compass, they can scarce strike at Back-stroke; then let the *Treble* Ringer stamp, as a Signal, to notify, that the next time they come to strike at the Fore-stroke, to check them down, to hinder their striking the Back-stroke; yet Fore-stroke continued, 'till brought to a neat and graceful Chime, which may be the *Finis* to that Peal.

Thus much in short, for *Raising*, *Round-ringing*, and *Ceasing a Peal of Bells*: I come next to lead you forth into that spacious Field of Variety of *Changes*, and present you with Instructions that may be merely necessary, for the right Understanding the several Kinds of them.

Now in *Ringing Changes*, two of our best Senses are to be employed, *viz.* The Ear, and the Eye: The Ear, hearing when to make a *Change*; and the Eye directing the Bell in making it: The Bells being the Object of the former, and the Bell-ropes the Object of the latter: And to render both the Eye and Ear useful in *Ringing Changes*, these Five Things are thoroughly to be understood.

First, Endeavour to distinguish the Notes of a Peal of Bells, one from another while Ringing.

Secondly, Learn to apprehend the Places of the Notes.

Thirdly, Understand the Precedency of Notes.

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Fourthly, How to make a *Change* in Ringing.

Fifthly and *Lastly*, How to Practise the Four foregoing Notions in general.

1. To know the Notes of a *Peal* of Bells *afunder* (which is easie in *Round-ringing*) in *Changes* is thus: Get the Skill of tuning them with your *Voice*, by imitating their Notes while *Ringing*. Or if you are acquainted, either by your self or Friend, with some *Singing-Master*, or one who has Skill in *Singing*, get him to instruct you in the true Pitch of any Note, and aid your distinguishing them; otherwise you may be puzzled in this, to know which is *Treble*, which *Second*, &c. as in 532641, &c.

2. To know the Places of the Notes, is no Way better to be apprehended than thus: The Practitioner ought to form an *Idea* in his Head of the Place of each Note, whether in a direct *Line*, or *Obliquely*; and representing them by a *Figure* in his Mind, see (as it were) by the Eye of the Understanding each stroke of the Bell, as the *Treble* 1, *Second* 2, *Third* 3, &c. so that as the Ear is to direct him, when to make the *Change*, so a right Apprehension of the Motion and Places of the Notes, ought to be a Means to guide his Ear.

3. The Precedency of Notes, is of a very obvious Demonstration; thus, In *Ringing Changes*, the Fore and Back-stroke, successively following one another, are properly said to *lie behind* one another, according to their Places of Striking. Or, in short, in 12345, the Note that leads either at Fore or Back stroke, is said to *lie before* the rest, and the last to be behind. As the 2 is said to lie behind the 1, so it lyeth before the 3, as the 3 lyeth behind 2, so it lyeth before the 4. And so of as many as are *Rung*.

4. The manner of making a *Change*, is very common and needs no particular, but general Rule; That it is made by moving one Note into another's Place, Up and Down, as Occasion requires; but usually.

usually made by two *Notes* standing one next the other, as hereafter may be observed. He t

Lastly, In your Ringing *Changes*, these two things (in which consists the practick part of this Art) are to be rightly considered, *First*, Readily to know which two *Bells* are to make the succeeding *Change*. And *Secondly*, to consider (if you are concerned in it) what *Bell* you are to follow in making it. To understand which the more perfectly, you must imprint in your Memory, the Method of the *Changes* prick'd in *Figures*, and to be expert likewise in setting them down divers ways, and making any *Figure* a Hunt at Pleasure; and thus without pausing or hesitating to consider the Course, you may thoroughly understand the Methods; the Four preceding Observations being first perfectly understood. the extr

There are two Ways of Ringing *Changes*, viz. By *Walking* them, as the Artists stile it; or by *whole Pulls*, or *half Pulls*: *Walking* is when in one *Change* the *Bells* go round, *Four*, *Six*, or *Eight* times; which is a most incomparable way to improve a young Practitioner, by giving him time to consider, which two *Bells* do make the next succeeding *Change*, and in making it, what *Bell* each is to follow; so that by this means (by his Industry) he may be capable of Ringing at *Whole-pulls*; which is, when the *Bells* go round in a *Change* at Fore and Back-stroke; and a new *Change* is made every time they are pulled down at Sally. This was an Ancient Practice, but is now laid aside; since we have learnt a more advantageous Way of hanging our *Bells*, that we can manage a *Bell* with more Ease at a *Set-pull* than formerly: So that Ringing at *Half-pulls* is now the modern general Practice; that is, when one *Change* is made at Fore-stroke, another at Back-stroke, &c. But

ext the He that rings the slowest *Hunt*, ought to notify the extream *Changes*; which is, when the Leading Bell is pulling down, that he might make the *Change* next before the extreme, he ought to say *Extreme*; by this Means, betwixt the Warning and the Extreme, there will be one compleat *Change*.

Of *Changes*, &c.

There are two kinds of *Changes*, viz. *Plain Changes*, and *Cross-peals*; which Terms do denote the Nature of them, for as the first is stiled *Plain*, so are its Methods easy; and as the second is called *Cross*, so are its Methods cross and intricate: The first have a general Method, in which all the Notes (except three) have a direct *Hunting-Course*, moving gradually under each other, plainly and uniformly: *Plain* are likewise termed *single Changes*, because there is but one single *Change* made in the striking all the Notes round, either at Fore or Back-stroke. But the Second is *various*, each *Peal* differing in its Course from all others; and in *Cross-peals* as many *Changes* may be made as the Notes will permit. In short, as to *plain Changes*, I shall not dilate on them here, it being so plainly understood by every one that lately have rung a Bell in *Peal*; all therefore I shall add is this, that any two Notes that strike next together may 'make a *Change*, which may be done either *single* or *double*, as you list. The *single*, by changing two Notes; and the *double* by changing Four, i. e. Two to make one *Change* and two another; which is however called *One double Change*, and not two *Changes*; because 'tis made in striking the Notes of the Bells once round.

But before we proceed any further, 'twill be requisite to give this general Instruction: that in all *Peals* for the young Practitioners more easie Learning, we shall set down some few *Changes*, as the Courses of such *Peals* will permit, thereby to acquaint him with

with a more easie Method of Learning the same, advising him not to adventure on too long *Peals*, 'till he is thoroughly practis'd and perfect in such ones.

No *double Change* can be made on a less Number of *Bells* than Four (therefore that must be first treated of) and the shortest *Peal* that can be Rung on Four is of Eight *Changes*, being *Doubles* and *Singles*, and the first is *Double* and the next *Single*, and so by turns, 'till every *Bell* being hunted up and down, comes into its proper Place again, which brings the *Bells* round. By this may be learnt the Method of Hunting a *Bell* for as may be seen the *Changes* here prick'd down, every *Bell* hunts gradually up and down, and the second and fourth hunt down, and the *Treble* and *Third* up, and every *Bell* leads away no more than one whole *Pull*, or lies behind any more than one whole *Pull*.

1234	
2143	3412
2413	3142
4231	1324
4321	1234

When the Practitioner is perfect in this, he may then proceed to Ring the four and twenty *Doubles* and *Singles*, wherein must be observed, that when the *Treble* leads the *Bell* in second's Place lies a whole *Pull*, and then leads, and the two *Bells* in third and fourth's Places, make a *Single Dodge*, as by the subsequent Figures may appear

1234		
2143	3124	4132
2413	3214	4312
4231	2141	3421
4321	2431	3241
3412	4213	2314
3142	4123	2134
1324	1432	1243
1342	1423	1234

Now

Now the true Signification or Meaning of a *Dodge* is this; any Bell that is coming down, and is to make a Dodge, must move up again one Bell higher, and any Bell that is going up, and is to make a Dodge, must come down one Bell lower, and then up or down as the Course of such Bell requires, as may be seen at the leading of the *Treble* at Fore-stroke in the preceding Twenty Four *Changes*, where the second is in third's Place coming down, and the fourth behind, but at the next *Change* at Back-stroke, the fourth goes down into third's Place, and the second goes up behind; this may serve as an Explanation for Dodge-ing in all *Peals*.

There is another Way of Ringing Twenty Four *Changes*, Doubles and Singles on Four Bells, which varies only from the former, that when *Treble* is behind, the Bell in third's Place lies still a whole Pull, and the Bells in *Treble* and second's Places make a Dodge, and then proceed again in their former Course, as may be here seen.

1234		
2143	4132	3124
3413	4312	3214
4231	3421	2341
2431	4321	3241
4213	3412	2314
4123	3142	2134
1432	1324	1243
1423	1342	1234

In all *Peals* upon five Bells there are two *Hunts*; to wit, a whole and an *Half-hunt*, and for the Practitioners more easy knowing, which Bells are the whole *hunt*, and the *Half-hunt*, the Figures representing such Bells are set down at the Beginning of each *Peal*.

This *Peal* on five *Bells* is thirty, wherein every *Bell* has an *Hunting Course*, till the *Trable* has done leading, and then the *Bell* in third's Place lies still and the two hindmost *Bells* make a single Dodge, and proceed in their *Hunting Course* again as in the thirty *Changes*.

Hunts 1 2 3

12345		
21354	21543	21435
23145	25134	24153
32415	52314	42513
34251	53241	45231
43521	35421	54321
45312	34512	53412
54132	43152	35142
51423	41325	31524
15243	14235	13254
12534	12453	12345

Of Cross-Peals.

Or in these *Cross-Peals*, we must observe the *Prime Movement*, which sets the whole Frame a going and that is called the *Hunt*, which hath one constant uniform Motion throughout the *Peal*, and differs from that of the other Notes; and indeed by this the whole Course of the *Peal* is steer'd. This keeps a continual Motion through the other Notes, from leading, to strike behind, and from thence again to Lead; which is called one compleat Course.

Some *Peals* upon five *Bells* consist of single Courses, wherein are ten *Changes*, and twelve Courses make the *Peal*. Others upon Five, consist of double Courses, wherein are 20 *Changes* to every Course and six Courses in the *Peal*.

Up

Upon six Bells there are likewise *single* and *double* Courses, viz. Twelve Changes in every single Course, as in *Grandfire-bob*, &c. and Twenty four Changes in every double Course, as in *College Bob*; that being the first Change of every Course, wherein the Hunt leaves Leading: In short, judiciously observe the first Course of any *Cross-peal*, and you will soon see the general Method of the whole Peal: All Courses in *Cross-Peals* agreeing in these following three Respects. First, *In the Motion of the Hunt*. Secondly, *In the Motion of the rest of the Notes*. And Thirdly, *In making the Changes*. Which three things being well (to omit Instance of Demonstration) and narrowly observed, will be very helpful both in *pricking* and *ringing* Courses; the first and third for directing you in *pricking* them, and the first and second in *ringing* them.

There is one Difficulty to be removed e'er I can come to *prick-down* those Peals I design to be the Subject of the Discourse of this *Epirome*, and that is, *How to make the first Changes at the Beginning of each Peal*. I mean to make the *Second*, *Third*, *Fourth*, &c. whole Hunts, and this in short is thus directed: In any *Cross-peal* the whole Hunt may move either up or down at the beginning; and the Motion of the whole Hunt, in the first Course of each of the following Peals will direct the first Motion of any *Cross-Hunt*, and by Consequence of making the first Changes in that Peal, taking along with you this Observation,

That whensoever the first Change of any Peal happens to be *single*, it must be made at the back-stroke, to prevent *cutting Compass*; and the like, when a double Change happens first in a Peal of *simples* and *Doubles*: But when it happens, that the first Change is made at the Back-stroke, then Consequently the Bells at the End of the Peal will come round at a Fore-stroke Change.

I shall omit speaking to any of the several Peals on Four or Five Bells; for that in my Opinion little Musick is heard, though much *Practical Observation* made from them; and therefore shall begin with *Grandfire-bob*, as having mentioned it but just before in my general View I made of *Croft-peals*.

Grandfire-bob.

Bob Changes take their Name from this, *viz.* When the *Treble* leads in the *Second* and *Third*, and the *Fourth* and *Sixth's* Places, then they are called *Bob Changes*. In Ringing which you are to observe these Rules *viz.*

Whatsoever Bells you follow when you Hunt the same Bells in the same order you must follow in *Hunting down*; as in the Changes here prick'd, where the *Treble* hunting up, *first* follows *second*, then *fourth*, and then *sixth*; when it comes behind *first* follows *second*, in hunting down *fourth*; and when hunting up follows *sixth* in the same Order. The like may be observed in Ringing any other Bell, with this Difference betwixt the whole Hunt and the rest, *viz.* Every time the whole Hunt leads the *Treble's* Place, and hunts up, it followeth different Bells, from what it did at its first hunting up.

In the ensuing Peal here prick'd, are *Eighteen* *Single Changes*, wanting one. It may be Rung with a *Hunt*, and begin the Changes *Triple* and *Double*. You may make your extream at the first, second, or third *single Bob*; or the first, second, or third time, that the half and *Quarter-hunts* dodge behind the *single* must be made behind in either of these.

123456	156423	321645	124536	_____
_____	514632	236154	125463	136524
214365	541362	263514	_____	135642
241635	453126	625341	152643	_____
426153	435216	652431	156234	153462
462513	342561	564213	_____	bob.
645231	324651	564123	165324	135426
654321	236415	451632	16342	_____
563412	263145	415362	_____	153246
536142	621354	143526	136452	152364
351624	612345	bob.	bob.	_____
315264	165243	134562	163425	125634
132546	162534	315426	_____	126543
135264	615243	351246	136245	_____
312546	651423	532164	132654	162453
321456	564132	523614	_____	164235
234165	546312	256341	123564	_____
243615	453621	265431	125346	146325
426351	435261	624513	_____	bob.
462531	342516	642153	152436	164352
645213	324156	461235	154363	_____
654123	231465	416325	_____	146532
561432	213645	143652	145623	bob.
516342	126354	bob.	bob.	164523
153624	123654	134625	154632	_____
156342	216354	316452	_____	146253
513624	261534	361542	145362	142635
531264	625143	655124	bob.	_____
352146	652413	653214	154326	124365
325416	564231	562341	_____	_____
234561	546321	526431	145236	123456
243651	453612	254613	142563	_____
426315	435162	245163	_____	_____
462135	341526	421536	124653	_____
641253	314256	412356	126435	_____
614523	132465	143265	_____	_____
165432	134256	142356	162345	_____
bob.	312465	_____	163254	_____

Thus much for *Grandfire-bob* ; I shall next collect what *London Peals* I think most harmonious and agreeable, without troubling my self to go to *Oxford*, *Nottingham*, or *Reading*, to enquire after their different Methods of Peals, as indeed needless ; and my Reason is this : Because I think the same Rules for Peals that are suitable to our *London Genius*, may challenge likewise an Acceptance amongst other Cities ; provided their Steeples are furnished with as many, and as good Bells, and their Belfreys with as ingenious and elaborate Ringers as here in *London*.

I shall begin then with Peals upon Six Bells, and herein in order, measure out the Delights on Peals from Six to Eight Bells, and setting out early, present you with

The Morning Exercise.

Doubles and Singles. The whole *Hunt* is the Treble, which hunteth up into the Second, Third, and Fourth Places, lying twice in each ; and then lyeth still in the sixth Place, having dodged behind, and makes another, and then *Hunts* down as it *Hunted* up, and then leads four Times. Observing the manner of its Pricking, and its Practice may excuse any further defining it.

123456	254613	164352	bob.		136542
213465	256431	164325	153426	146532	bob.
213465	256413	bob.	153462	146523	135642
213456	265143	163452		bob.	135624
231465	265134	163425	152643	145632	
231456	265143		152634	145623	132465
234165	261534	165143	125643		132456
234156	215543	165234	125634	143265	123465
243516	216534	156243		143256	123456
243561	126543	156234	124365	134265	
245316	16534		124356	134256	
245361	162543	154326	142365		
254631	162534	154362	142356	136524	

This

This will go 120 Changes, and by making *Bobs*, 140, 360, 270.

A Cure for Melancholly:

Doubles and Singles.

I should think it needless to explain the Method of prick'd Peals, and give a large Definition of them; when their plain Demonstration might be sufficient; however, as the old Phrase is, *Because 'tis usual*, something shall be said of this too.

The Treble is the whole *Hunt*, as in the former, and leads four Times, and lyeth behind as many, and twice in every other Place; the two Bells in the 3d and 4th Places continue dodging, when the Treble moves out of the 4th Place, untill it comes down there again, and then the two hindmost dodge, 'till the Treble displaceth them, who maketh every double Change, except when it lyeth behind, and then the double is on the four first, and on the four last when it leads. Every single (except when the Treble lies there) is in the 5th and 6th Places; or if possessed by the Treble, then in the 3d and 4th Places: Every Bell (except the Treble) lies four times in the second Place: But enough; *A Word is enough to the Wise*. See it here Decyphered:

123456	245316	451236	156423	134652	125643
2465	243561	451263	156432	134625	125634
2456	213465	415236	<i>bob.</i>	162345	126543
3465	213456	415263	165423	162354	154263
3456	231465	145236	165432	163245	154236
	231456	145263		65254	152463
	234165	142536	143652		152436
	234156	142563	143625		
	243516	452163	<i>bob.</i>	125634	
			E 2	143526	

143526	134562	bob	132654	123456
143562	156423	165423	132645	124365
bob.	156432	165432	136254	124356
134526	156432	136245	123465	

This will go *Six Score Changes*, but by making *Bobs*, it will go 240, 360, or 720. The *Bob* is a double *Change* at the leading of the *Treble*, in which the *Bell* in the 4th Place lyeth still.

London Nightingale.

Doubles and Singles.

The Whole-Hunt is the *Treble*, who lieth four times before, and as many behind, and twice in every other Place: The two hind Bells continue dodging, when the *Treble* moves down out of the Fifth Place, 'till he comes there again, the *Bell* in the Fourth Place lying still all the while: When the two hind Bells aforesaid leave dodging, then the two first Bells take their dodging Places, 'till dispossessed again, by the Return of the said hind Bells to their dodging; and then they cease.

123456	243561	451263	162543	134526
213465	243561	415236	162534	bob.
213465	423561	415263	153624	135462
213456	245361	145236	153642	135426
231465	425361	145263	bob.	142356
231456	245316	154236	156324	142365
234165	425316	154263	156342	124356
234156	452136	126543	134562	124365
243516	452163	126534		
423516	451236			

136245

Of Ringing.

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is a
which

136145	125643	bob.	bob.	123465
136254	152634	165423	146352	123456
163245	152643	165432	146325	
163254				
	164523	143652	132465	
125634	164532	143625	132456	

This will go 120, and by making Bobs, 240, 360,
or 720.

College Bobs.

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their

In this Bob, when the Treble leaves the two Hind Bells, they dodge 'till it comes there again, and 'till the Treble gives Way for the dodging again of the said two Hind Bells, the two First Bells dodge, but after cease dodging, when the two Hind Bells dodge.

123456	423615	412653		
	243651	421635	152364	165324
214365	426315	246153	135246	bob.
124356	462135	241635	153246	156342
213465	641253	426153		
231456	642135	462513	126543	132546
324165	461253	etc.	125634	135264
521456	416235	16542		
234165	142653	bob.	164235	124365
243615	412635	156423	162453	123456
426351	146253			
246315	142635	13326	143652	
423651	416253	bob.	bob.	
246351	146235	134562	134625	

Another.

Here every Bell, when it comes to lead, makes Dodge before, then after one Change it lyeth still after it has made another Dodge, it moves up in the 4th place, where twice it lyeth still; and does again, except the Treble happens to dodge with it in the 4th place, then it hunts up behind. When the Treble moves down out of the 3d place, the two Bells in the 3d and 4th place continue there, 'till the Treble comes up thither again, the two hind Bells dodging in the mean Time.

123456	623541	312546	<i>bob.</i>	<i>bob.</i>
214365	265314	132564	135426	164352
124356	625341	315246	153246	146532
213465	263514	351426	152364	<i>bob.</i>
231645	236154	534162	125634	164523
326145	321645	534126	126543	146253
231654	321654	<i>etc.</i>	162453	142635
326154	312564	153624	164235	124365
362415	135246	<i>bob.</i>	123456	
634251	315264	135642		
364215	132546			
632451	135264	153462	146325	

Both these *Bobs* will go One Hundred and Twelve *Changes*, and by making of *Bobs*, they will go 24360, or 720. And thus with little Variation, there are other *Bobs* may be made after the same manner, and afford as admirable Musick as possibly can be made on Bells. I shall therefore hasten to finish the Day's Work, only first present you with this one more, called

The City Delight.

Doubles and Singles.

The whole *Hunt* is the *Treble*, and lieth as before in the *Nightingale*: When the *Treble* moves out of the 3d Place, the *Singles* are made in the 2d and 3d place, 'till the *Treble* repossesses his 3d place, and then behind, 'till it moves up again out of the 3d place. The Two hind Bells dodge when the *Treble* moves out of the 5th place, 'till he returns again; the Bell in the 4th place lying still all the while.

1234 6	264351	154362	162534	143265
265413	bob.	162543	143256	
213465	256413	153426	126534	134265
213456	265143	153462	126543	134256
231465	256143			
231456	251634	156234	124365	135642
234165	251643	156243	124356	135624
234156	215634	165234	142365	bob.
234156	215643	165243	142356	136542
234615	125634	164352		136524
243615	125643	164325	145623	
243615	152634	bob.	145632	132465
246351	152643	163452	bob.	132456
264351		163425	146523	123465
246531	154326		146532	123456

This will go as many *Changes* as the last mentioned, by making *Bobbs*. And here I will shut up this Day's Peal upon Six Bells with

The Evening Delight.

Doubles and Singles.

The whole *Hunt* is the *Treble*, and lies as before specified, with this Exception only: That it dodges in the 2d and 3d Places, every time it *Hunts* up and down. Observe when *Treble* goes to lead, and leave off leading, the *Bells* in the 3d and 4th Places still, &c. Note the Pricking this *Peal*.

123456	254163	164235	145326	156324
213465	245163	154236	154236	<i>bob.</i>
231465	241536	162453	153462	165342
213645	214536	126453	135462	156342
231645	241356	<i>bob.</i>	135462	
236154	214356	162435	153642	153624
236154	124365	126435	135642	135624
236514	142365			153264
263514	124635	124653	136524	135264
265314	142635	142653	163524	
256341		124563	<i>bob.</i>	132546
265431	146253	142563	136542	123546
256431	164235		163542	132456
254163	<i>bob.</i>	145236		123456
245613	146253	154236	165324	

This *Peal* will go 123 Changes, and by making *Bobs* as many as above.

Note that in all the foregoing *Peals* upon *Six Bells* the *Bobs* are double Changes, and made always at the Leadings of the whole *Hunt*. He that Rings the half *Hunt*, may best call *Bob* in all *Peals*.

I come

In

I come now to the Changes upon Seven Bells, which tho' the seldom Practice of them might excuse my omitting them ; yet because I promised to say somewhat of them, I shall be as good as my Word, (the Character of an honest Man) and present you with a Couple of Examples, and then proceed to Peals upon Eight : But this I must crave leave to premise, That variety of Changes may be prick'd upon Seven Bells, as Triples and Doubles, Triple Doubles and Single Doubles, &c. and the same Methods may be prick'd upon Seven, as may be upon Five, the true Difference of Proportion being observed ; but to proceed.

Dodging Triples.

Triples and Doubles, and indeed all Peals upon Six, may likewise go upon Seven Bells : Thus,

1234567		
2143576	4523671	3514276
2415367	542761	3152467
4251376	452376	1325476
4523167	5432176	1352746
5432617	5341267	

Plain Triples.

1234567		
2143657	6745231	3517264
2416375	7654321	3152746
4251735	7563412	1325476
4627153	5736142	
6472513	5371524	

In this all the Bells have a Hunting Course.

College Triples, dodging before and behind.

<u>1234567</u>		
2143576	2467315	4176235
2415367	4276135	4712653
4251376	2471653	7421635
2453167	4217635	4726153
4235617	4126753	7462513
2436571	1462735	4765231
4263751	1467253	

This Peal thus prick'd, will go 84 Changes, and the Treble leading, and the *Half Hunt* lying next it, and a parting Change (which is a Double on the Four middlemost of the Six hind Bells) being made, it will go 420, and by making *Bobs* 5040.

Thus much shall suffice for Peals upon Seven Bells. I proceed to Changes upon Eight.

Peals of Eight Bells.

Without amusing our selves with what Notes are most *Musical*, to lie *behind*, we will come to the Matter of Fact; for those Methods of Peals that are prick'd on Six, may be the same upon Eight, observing only, That Triples and Doubles upon Six, must be Quadruples and Triples upon Eight.

The

Of Ringing.

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The Imperial Bob.

Quadruples and Triples.

The Treble hath a dodging *Course*, the two first and two last Bells always dodge, 'till hinder'd by the Treble, the two next to these lying still one *Change*, dodge the next, 'till the Treble hinders them too. Those in the 5th and 6th Places dodge (the Treble being behind) and those in the 3d and 4th Places likewise dodge (the Treble being before,) and so 'till hinder'd by the Treble.

12345678	42361875	16847253	14283675
21436587	24638157	16482735	— — — —
12346578	42631875	— — — —	18645273
21436587	24613857	18765432	18462537
24136578	42168375	<i>bob.</i>	— — — —
42315687	24618357	17264523	16587432
24135678	42163857	— — — —	<i>bob.</i>
42316587	41268357	16573824	15684732
24361578	14623875	<i>bob.</i>	— — — —
42635187	41263857	15678342	18753624
24631578	14628375	— — — —	<i>bob.</i>
42365187	14263857	17352648	17856342
24635817	41628375	12536184	— — — —
42368571	14268357	— — — —	15372846
2436817	41623875	13274586	15738264
42638571	46128357	13725468	— — — —
24365871	64213875	— — — —	13254768
42638517	46123857	12438765	13527486
24635871	64218375	12347856	— — — —
42368517	46281357	— — — —	12436587
24638157	<i>bob.</i>	24826357	12345678

By

By this Method the Peal will go 224 Changes and by my making of *Bobs*, it will go 448, 672, 1344. The *Bob* is a Triple Change at the leading of the Treble, wherein the Bell in the Fourth Place lies still.

The next that comes to our Observation, and answers to what we first hinted at in the Beginning of this Discourse of Peals upon Eight Bells, I mean *Precedency in Title*, is the

Bob Major.

Plain Quadruples and Triples.

In this all the Bells have a direct *Hunting Course*, untill the Treble leads and then the six hindmost Bells dodge.

12345678		
21436587	86745231	35172846
24163857	87654321	31527486
42618375	78563412	13254768
46281735	75836142	31527486
64827113	57381624	
68472513	53718264	

By this Method this will go 112. And by making *Bobs*, 224, 336, or 672. The *Bob* is a Triple Change, as in the foregoing *Imperial* is specified. By making two *Extreams*, it will go 1344, and with four *Extreams*, 2688.

All Peals upon Six Bells, wherein half the Changes are Triples, will go upon Eight according to the Method before-going, thus, If it be a Peal upon

Of Ringing.

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upon Six, consisting of 360, or 720 Changes, then there must be five *Hunts* in the Ringing of it upon *Eight*, the Treble being the First, 2 the Second, &c.

College Bob Major.

Quadruples and Triples.

There are Four Ways of pricking these. The first hath single Dodging behind, and is thus Peal'd.

The First.

12345678

21436587

24163578

42615387

46251378

64523187

65432817

56348271

53684721

35867412

38576142

83751624

87315642

78136524

71863542

1768324

16758342

The Second.

This hath single Dodging before and behind, thus prick'd.

12345678

21436587

24163578

42615387

24651378

42563187

65432817

42358671

24385761

42837516

24872156

42781365

24718356

42173865

41237856

14328765

13482756

The

Of Kinging.

The Third.

This hath double Dodging behind, thus prick'd.

<u>12345678</u>		
21436587	63548271	78153624
24135678	65384721	71856342
42316587	56837412	17583624
43261578	58673142	15786342
34625187	85761324	
36452817	87516342	

The Fourth.

This hath double Dodging before and behind both, thus,

<u>12345678</u>		
21436587	42638571	42167358
24135678	24368751	41263785
42316587	42637815	14627358
24361578	24367185	16423785
42635187	42631758	
24365817	24613785	

These may be prick'd several other ways, but that I omit here for Brevity sake; the *Dodging* is without Intermission, except an Hindrance comes by the *Treble*; as likewise between two Bells, untill *Treble* parts the Fray. The *Bobs* are *Triple Changes*, as the *Treble* leads; in the 1st, 2d, and 6th; the *Bell* in the 4th Place lies still at the *Bobs*, and in the 3d, 4th, and 5th, that in the 2d Place lies still.

Each of these will go 112 Changes, and by making *Bobs* 214, 336, or 672.

Col-

College Triples, *dodging both before and behind.*

This Peal is the same for *Bobs*, as the *Bob Major*, and will go as many Changes by making *Bobs*, or otherwise, as any of the foregoing Four, and is thus Peal'd.

12345678		
21436587	42568371	42157836
24153678	24586731	41275863
42513687	42587613	14725836
24531678	24578163	17452863
42536187	42571836	
24563817	24517863	

The Wild Goose Chase Triples.

The Explanation shall follow the Peal, intending here to put an End to my *Epitome* of the *Art of Ringing*, and therefore shall first present you with this prick'd thus.

12345678		
65327184	37625481	15327684
21536784	73265418	13572648
25163748	72356148	31752684
52613784	27531684	37125648
56231748	25713648	73215684
63572814	52173684	72351648
36758241	51237648	

In this Change the 4th Bell must first hunt up into the Seventh's Place, and then the 4th and 8th always dodge behind throughout the Peal, unless when obstructed by the *Treble*. The Bell that moves up into the 6th Place, when the *Treble* moves thence down, lies still there, till displaced by the *Treble*; during which Time the two hind Bells dodge, and the five first go a perfect *Hunting-Course*. And when likewise the *Treble* moveth out of the 5th Place, the five first Bells go a *Hunting-Course*, till it comes down there again: By this Method it will go 80 Changes, and by *Bobs* 160, 240, or 480. The *Bob* is made as in the foregoing Changes.

And here I thought to make an End of the *Art of Ringing*, but *Cynthia aurem vellit*, the young Practitioner, whose only Information is hereby aimed at, plucks me by the Sleeve, and tells me in the Ear, that tho' Peals upon Six, as *Triples* and *Doubles*, &c. make excellent Musick upon Eight Bells, 4 8. 6 8, 4 1, or 1 8, lying behind: Or, *Triples* and *Doubles* upon the six middle Bells, the *Tenor* lying behind; yet, for him who is not arrived to such a Perfection of Skill, as to Ring these compleat Peals, the most proper and easy for him are *Set-Changes*, which are founded on these *Grounds*.

First, *Placing the Bells Fifths*; thus the 4 must hunt up behind the 7, the 3d behind the 6th, and the 2 behind the 5; or the One may hunt down under the other, as the 5 under the 2, the 6 under 3, and 7 under 4: Or if you will, first let a *Single*, next a *Double*, and then a *Triple* Change be made on the middle Bells, all coming to the same Effect; for then the Changes will lie *Fifths*; thus, 1 5, 2 6, 3 7, 4 8. In the Peal four *Concords* are to be regarded; the first 1 5, the second 2 6, the third 3 7, and the fourth 4 8.

These Four *Concords* may go the Methods of any Changes upon four Bells; 1 5 being taken for the *Treble*; 2 6 for the *Second*; 3 6, for the *Third*; and

4 8, for the *Fourth*; and the *Concords* may change Places with one another, as you list. In which, this Observation is highly necessary, that the two Notes of every *Concord* must constantly attend each other in their Motion; that is, whenever one of the two Notes moves, the other must follow it.

Or, Secondly, *Place the Bells Thirds*; thus: The 6 4 and 2 must hunt up or else the 3 5 7 down; or otherwise on the middlemost Bells let a *Triple*, *Double*, or *Single Change* be made are to one effect; and then the Bells will lie *Thirds*; thus, 1 3, 5 7, 2 4, 6 8. Herein are *Four Concords Observable*; as in the former Peal, *viz* 1 3, 5 7, 2 4, 6 8. These *Concords* may go the Methods of any Changes upon Four Bells, 1 3 being taken for the *Treble*, 5 7 for the *Second*, 2 4 for the *Third*, and 6 8 for the *Fourth*; moving in the same manner as before shewed.

By these *Grounds* variety of excellent and musical Changes are to be rung; any *Concord* may be made a *Hunt*, and to move up and down at the Beginning.

In Ringing these *Set Changes*, the Note will lie sometimes *Fifths*, sometimes *Thirds*, and both, and then to *Clam* them is admirable Musick; *Clamming* is, when each *Concord* strike together; which being done true, the 8 will strike as but 4 Bells, and make a melodious Harmony. You may *Clam* two or three Bouts, and then strike as many Times open alternatively, one *Clam* one *Pull*; and open the next.

Vocal MUSICK: Or, Plain and Easy
Directions to Sing by Notes, wherein with a little
Help, any one who is Musically given, may be
perfected in a short Time.

MUSICK, especially Vocal, has been of such high Esteem in all Ages, that it is accounted no less than a Divine Science; producing such
Concor-

Concordance and Harmony, that it cheereth and rejoiceth the Hearts of Men, and is delightful to every Creature. It is certainly an Addition to the Joy in Heaven, where the Saints and Angels sing Halleluja's and Songs of Praises before the Throne of God. St. *Austin* tells us, that it is the Gift of God to Men as well as to Angels, and a Representation and Admonition of the sweet Consent and Harmony which his Wisdom hath made in the Creation and Administration of the World. But not to Prologue on what every where so much commends it self, I shall sum up what in that Nature is expedient in a few Verses, and so proceed to the Subject Matter, viz.

*Nature, which is the vast Creation's Soul,
That steady curious Agent in the whole,
The Art of Heaven, the Order of this Frame
Is only Musick in another Name:
And as some King Conquering what was his own,
Hath choice of various Titles to his Crown,
So Harmony on this Score now, that then;
Yet still is all that takes and governs Men:
Beauty is but Composure, and we find
Content is but the Concord of the Mind;
Friendship the Unison of well tun'd Hearts,
Honour the Chorus of the noblest Parts:
And all the World's Good on which we can reflect,
Is Musick to the Ear, or to the Intellect.*

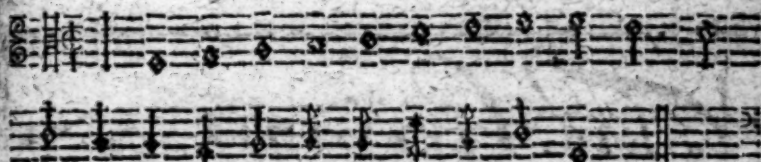
There are to make up a Musical Harmony, computed seven Notes; now in the easiest way express'd by the 7 Letters of the Alphabet, viz. A, B, C, D, E, F, G. And if it so fall out, that a Voice or Musick gradually rise or fall more than Seven Notes; the subsequent 8th, 9th, or 10th, will in the same order proceed, bearing the like Relation each to the

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the other, as the 1st, 2d, 3d, &c. to which they respectively are *Eights*. And so that from hence every Eighth Note, being in Nature alike, is called by the Name of that to which it is an Eighth; however above or below it: And for the better understanding the various Musical Compositions out of these Notes, Musicians have devised and made use of Lines and Characters, that as a Language, they may be understood and communicated by Book, for the Instruction of the Unlearn'd: As in the following Introductory Example, you will perceive:



In this Example, before I come nearer to Particulars in general, observe first, that those Characters you observe at the Beginning of the Lines, are termed *Cliffs* or *Claves*, Keys to open and signify what Part or Pitch of Voice, *viz.* the *Treble*, *Mean*, or *Basse* properly the Notes belong to; as likewise on what Line or Space the 7 Letters expressing the Notes are placed. And then again the Five Lines and Spaces between them are useful, as Steps or Gradations whereon the Degrees of Sound are to be expressed, or the Notes ascending and descending: Then Thirdly, the Characters placed on the five Lines, express the Notes themselves, or stand for them; and their Difference in Form signifies their Quality, whether they be longer or shorter.

Your Care must therefore be in this, and the Chapters following, to consider well in the first Place, the *Gamut*, to learn the Use of the Cliffs: Next to that, the Names of the Lines and Spaces, whereby

whereby you may readily know how to call a Note as it stands on any of the Lines; and thirdly, how you should sing those Notes in right Tune, as we do by Degrees as Leaps; and last of all, to give each Note its due Quantity of Time.

This in general, being observed, and seriously weighed; that you may take a Prospect of your Task, I from it proceed to the Gamut, so far as I think necessary to my present Design, which is to let you understand by it the use of the Cliffs, with the Order and Distances of the Notes, as the Parts in a Body lie together.

The Gamut or Scale of MUSIC

F	E la	f	s	
D	la sol	d	e	
C	sol fa	c		
B	fa mi	b		
A	la mi re	a		
G	sol re ut	g		
F	fa ut	f		
E	la mi	e		
D	la sol re	d		
C	sol fa ut	c		
B	fa mi	b		
A	la mi re	a		
G	sol re ut	g		
F	fa ut	f		
E	la mi	e		
D	sol re	d		
C	fa ut	c		
B	mi	b		
A	re	a		
T	Gammut	G		

The Gamut or Scale of Music

The Consistence of this Scale is of Eleven Lines, with the intermediate Spaces, and contains the Place of all the Notes that are made use of Ordinarily in Vocal Musick. In the first Column you will find the old Noces, being set down that you may see what they are. And in the second Column, you are shewed which of the Seven Letters properly belongs to each Line and Space. The Third Column contains the Cliffs, or signed Keys demonstrating how many Degrees of Notes they are one above another, which once circumspectly observed and known, the other Degrees of Distance are with more Ease compared. And here

Five of these Lines, with their Spaces, are usually sufficient for the pricking down any Tune, for which Reason this Scale is divided into three Parts or Staves, compass'd in with Arch'd Lines; and these the lowermost Five are proper, and belonging to the *Bass*, and are known by this mark  the Line of *F* usually, therefore called the *Fa-ut* Cliff or Key; because it opens to us the Letters standing on the other Lines and Spaces, as in the ensuing Chapter will appear. As for the uppermost five Lines, they contain the highest of the Notes, and so belong to the Treble, or the highest Part.  The Key to which is marked in this manner,  and sometimes *G. S.* on the lower Line is the *G* one.

The middle Part or Tenor, usually takes in two of the upper Treble Lines; also two of the Bass Lines, that in the middle only being proper to it self, known by this mark placed on it  for the Cliff or Key, its Place being properly in  the middle Line, however, it is many times placed on one or other of the other Lines; and note which ever the Cliff stands on, that Line is the Place of *C.* and accordingly the other Lines are to be reckon'd: sometimes likewise we find the *Bass* Cliff is removed

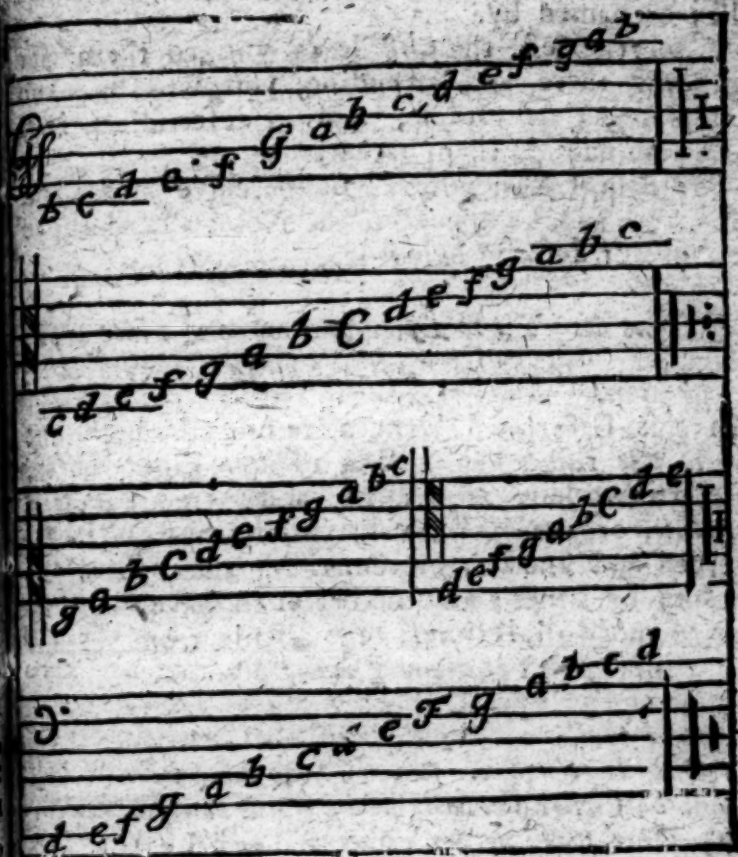
ved to the middle Line, and upon such Removal the Line is *F*, &c. and tho' this manner of shifting the *Cliff* is troublesome, yet Custom and Practice having made the knowing of them necessary, you ought to be very well understanding in the Manner of them, if you would be well skilled in Vocal or Instrumental Musick.

The Names of the Lines and Spaces.

Having thus far plainly proceeded to introduce the Beginner or Learner, I now lead a Step further to the Names of the Lines and Spaces, which is a Thing very material in the Beginning of Learning. For in the *Gamut* having seen how the Notes lie together in a Body, it will be proper to know how you must take them into Parts according to the several *Cliffs*, which are three in Number, three beginning usually, as most commonly with the uppermost. And in these your first Care will be to learn the Names of the Lines and Spaces, which are opened to you by the *Cliff* or Key; and these are in Number Seven, expressed in the Seven Letters, *A, B, C, D, E, F, G*, which for a more perfect Sounds sake, and other Reasons to be given, you must pronounce or call *Lā, B, Cē, D, Le, Fā, G*, and this *Fā* must be pronounced broad, &c.

These and the like Names the Notes receive for two Reasons; the first is, because the Voice is best sent forth in expressing some Syllable; as likewise that this Number of Notes might be known by many distinct Names: As for their Places in the *Cliffs*, See the Plate following.

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And it will be very necessary, That you should begin with and keep to one *Cliff* at the first, as it pleases you to chuse, or as either of the three best agrees with your Voice for a high or low Pitch. Having gone through all the Rules, and being perfect in that, then it is fit you should proceed to the other. There is no need you should meddle or trouble your self with the *Tenor* or *C Cliff*, because it keeps no certain Place; you must observe however, before you go further, to be ready at naming the Lines and Spaces, so readily to tell, as soon as you

you look on them, what Letter any Line or Space is called or named by.

As for the rest, the *Cliff* leads you to them, for beginning there, and ascending, you will find the Letters lying in Order; and in descending, it is only your naming them backwards.

The dash Lines, which you perceive above and below, are added only when the Notes ascend above the *Staff*, or descend below it.

Directions as to the Distances of one Note from another, as to Sound.

In this Case the Distances are not all equal, but that in the rising and falling of any Eight Notes, there are two lesser Distances; and these are named *Semitones*, or the *Half Notes*, which must be well observed and known, in remarking their Places in the *Staff* of Lines; and the better to have them in your Memory at all times, take a Rule from certain Rhymes that point at their Places, *viz.*

*In every Octave there are half Notes two,
Which do to us their proper Places shew;
One half Note you will find from B to C,
The other half one lies 'twixt Fa and Le.*

The *Octave* mention'd as an Eighth, and this Rule denotes the ordinary Places where you are to sing the *Half Notes*, when there are no Flats or Sharps placed or set in the Lines, *viz.* between B and C, and 'twixt Le and Fa; these  Flats and Sharps you will find thus marked,  and when the *Semitones*, or *Half Notes* are shifted, they are known by them when they are found upon the Lines.

Observe, that in these Staves or Lines, you find the Notes gradually ascending; of which the Pair marked with Arches are half a Note distant.

Observe

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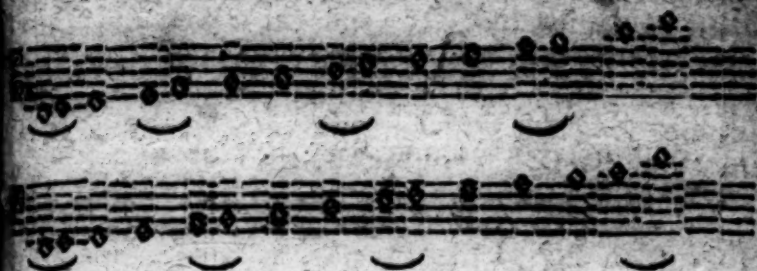
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Observe



Observe, that in these Staves or Lines, you find the Notes Gradually Ascending, of which the Pairs marked with Arches are half a Note distant.



G. This Marginal Figure shews to the Eye the Distance of the Seven Notes one from another, the Letters Guiding or Directing to the Particulars, whereas you perceive B, Cc, and Ls, Es, lying near unto the rest, so must their Sounds be nearer when you come to Tune your Voice in Harmony, &c. and the better to express with your Voice,

and so observe the Difference between half and whole Distances of Notes, Sing often over these Six Monasyllables, viz. One, Two, Three, Four, Five, Six, distinctly, as is to be observed in the Tune of Six Bells; and when you have done it many times, Sing only One, Two, Three, Four, and there stop, repeating Three, Four by themselves, for they are Semitones distant in Sound, and the rest are alone, or a whole Note distant each from the next; so that by a little Judicial Observation you will perceive the Three and Four Bells to be a lesser Distance in Sound than the other.

The Figures or Numbers, 1, 2, 3, 4, 5, 6, in the foregoing Marginal Figures, shew the several Di-

stances to the Eye of the six Notes where *Le* is the first, *D* the second, &c. and the third and fourth are *Ce*, *Be*, distant half a Note or Tune.

Directions for the Tuning of Notes, &c.

The properest and most easy way for Tuning your Notes rightly, must be considered either in following the Voice of one skill'd in Musick, or Singing, or some such Tuned Instrument, as is accommodated with Frets or Keys, which are the readiest and only ways as yet made use of by Practitioners. That of a Master being most common, but where none of these can be had by the Party desirous to Learn, I shall lay down the following Directions, which will very much Instruct one that hath a Musical Ear, especially such a one as has heard, and can sing the Notes of the Six Bells, of which I presume, there are few, whose Genius leads them to the Science of Musick, are ignorant.

Let me put then, Supposing that you can Sing *One, Two, Three, Four, Five, Six*, right; then shall I by the Help of these Notes, proceed to set you further in the right, and lead you to all the rest.

Consider well then, that beginning to Sing the first Note, let it stand on what Line or Space it will; you may sing it with what Tune you think fit, either high or low, (as to the Pitch of your Voice) but with this Caution, that you reckon how many Notes you have above or below it, that your Voice in its Pitch may be so managed as to reach them both without Squeaking or Grumbling, or any harsh or rough Indecency of Sound.

For applying which Six Notes, observe this First Example;

Make your Beginning with the first Bar, and with a high Voice sing the Six Notes you view on the Staff, divers Times calling them over by the Number, *viz. One, Two, Three, Four, Five, Six*,

in the
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D, C,



2.
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ward
Bar,
Note

Of Musick.

123

in the foregoing Section ; when that is done, Sing the same Notes by their Names, *viz.* *La, G, Fa, Le, D, C,* in the Tune of Six Bells.

The musical notation consists of six staves, each representing a bell. The notes are as follows:

- Staff 1:** Notes 1 through 6. Labeled "1 Bar." below.
- Staff 2:** Notes 1 through 6.
- Staff 3:** Notes 1 and 3.
- Staff 4:** Notes 2 and 3.
- Staff 5:** Notes 4 and 5.
- Staff 6:** Notes 4, 5, and 6.

2. In the second and third *Bars*, you must Sing the two first Notes of the Six by themselves, forward and backward : Repeat all Six in the fourth *Bar*, and in the fifth and sixth *Bars* let the two last Notes be repeated, *viz.* *D, G,* forward and backward,

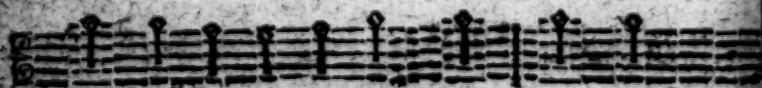
ward, and these Notes are a whole Tone distant, and by often repeating these Notes in the second, third, fourth, and fifth Bars, you will be better capable to know and distinguish their Distance from the Lesser.



In the seventh Bar repeat the last three often over after all the six. First, down, *Le, D, Ce, Le, D, Ce, &c.* and then proceed backwards, as *Ce, D, Le, Ce, D, Le, &c.*



Observe in this Eighth Bar, after all six, often to repeat the four first, as, *Le, G, Fa, Le*, and when you sing them particularly, observe the two Notes *Fa, Le*, by reason their Distance is a *Semitone*; wherefore you must take Notice in the Ninth Bar to sing them by themselves so many times as you can conveniently fix them in your Memory, as to their Distance; for in this you will find it somewhat difficult to sing the half Notes true in their proper Places.



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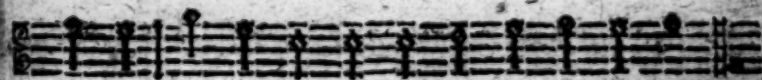
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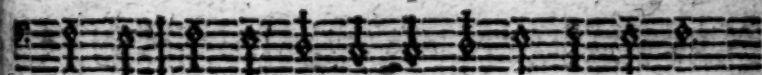
Observe here in the Tenth *Bar*, to sing the four first Notes in their Order downwards and upwards, and in the Eleventh *Bar* you must first sing the six Notes in their proper Order : After this, repeat the four last Notes, *viz.* *Fa*, *Le*, *D*, *Ce*, taking Notice to leave out the two first Notes, *viz.* *La*, *G*, continually observing to mark the *Semibre* between *Fa*, *Le*, which two Notes you must sing by themselves in the Twelfth *Bar*.



12

13

A Close.



12

13

A Close.

Take Notice now further, that in the thirteenth *Bar* you sing *Fa*, *Le*, *D*, *Ce*, down and up, as you find them pricked, and observe especially the three last, *viz.* *Fa*, *Le*, *Fa*, for this Reason, *viz.* that it is a common Close or Ending of Tunes.

Also observe, if in any Place you doubt you sing right a repeated part of the six Notes, premised as are noted in the Eleventh and Thirteenth *Bars* : Let all the six Notes be sung over again in order, and so proceed distinctly to try at the Parts themselves.

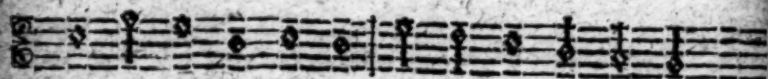
The Second Example.



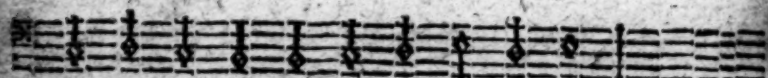
1. Bar.



2. 3.

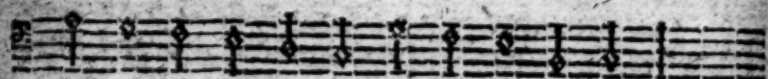


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5

Close.



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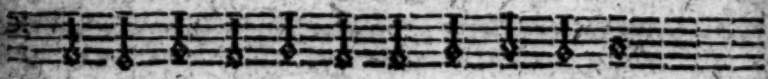


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You having now gone over the former Examples, must proceed by the same Clue of Six Notes to descend three Gradations or Steps lower, *viz.* to G, which is to the second Note of the first Six, an *Octave* or Eighth.

First then, in the first Bar you must begin with a high Pitch in your Voice, and so having sung, as, in the former Examples, *La, B, Fa, Le, D, Ce*, leave out *La*, and only sing the Five last: Then repeat only three in the second Bar, *viz.* the three last, *La, D, Ce*, calling them now not by those Names, but by that of *One, Two, Three*, and though the Names are altered, you must not alter the Tune or Tone.

Having thus proceeded, observe in the third Bar to sing the Six Notes from *Le* to G, naming them as the Bells, *One, Two, Three, Four, Five, Six*: In such a manner, that the three first of these be in Tune, the same with the three last of the former Six; after, as I said, you have sung them as the Bells, *viz. One, Two, Three, Four, Five*, at least four or five Times, then as often sing them again by their proper Names, *viz. Le, D, B, Ce, La, G*.

Observe again, that in the fourth Bar you sing the four first Notes, *La, D, Ce, B*, about four Times over; after that repeat *Ce, B*, by themselves, taking good Notice of their Distance or Differences, which is a *Semitone* like to *Fa, Le*, above, &c.

Consider once more, as to this Example, as to the fifth Bar, after all the six are sung by you, repeat the last four, *viz. Ce, B, La, G*, do it often over, keeping them up in the same Tone they had in all six, by which means *Ce* and *B* will be distant half a Note, whereupon sing them backward, *viz. G, La, B, Ce*, and at the End repeat *D, Ce*, as you did *Le, Fa* at the thirteenth Bar before set down.



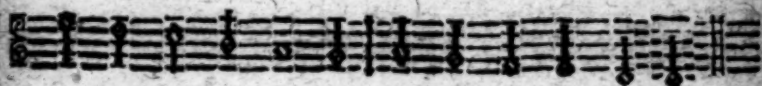
Observe further now in these Six Bars, that when you have sung all six in order, sing the three first *Le, D, Ce*, and there stop; then proceed to sing those three over again in the same Tune, not calling them *Le, D, C*, but *Three, Four, Five*; do it several times, and so proceed to the Seventh Bar, adding two Notes above, and sing them on the five Bells, viz. *One, Two, Three, Four, Five*, three or four times; then call them by their Names, viz. *G, Fā, Le, D, Ce*, then proceed to the Eighth Bar, and add to the other

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other five, *D, La, G*, to make up an *Octave*, keeping in your Mind the Distances, as you Sing them in the former Examples ; and by this means you have the whole *Octave* or Eight Notes from *G* to *G*, which must be practised down and up, and when you are perfect in it, so as to sing your Distances true with the *Semitones* in their right Places, the following Directions will lead you through the rest of the Notes to Sing any other *Octave*, beginning at any other Letter.



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10

Begin at *La* again in the Ninth Bar, and begin the six Notes, *viz. La, D, Ce, E, La, G*, in proper Order, that done, repeat the two last Notes, *viz. La, G*, by themselves ; so proceed to the Tenth Bar, and Sing *La, G, Fâ, Le, De, Ce*, so that *La* and *G*, may be the same in Tune as you found them in the former Six ; and if so be your Voice will not reach *Ce*, at the Pitch you began the first Bar, then sing as far as you can, or begin at *La*, at the Ninth Bar higher, Singing these three last Bars distinctly from the Foregoing.



11

In the Eleventh Bar you must Sing backward your six last Notes, *viz. Ce, D, Le, Fâ, G, La*, rising from *Ce* to *La*, so going one Step backward to *G*, rise to *Ce*, as in the foregoing fifth Bar, which is an *Octave* to the lower *Ce*. And thus much may suffice for the Beginner to practise on, which, if well understood, will bring him in to Sing Notes in any Tune.

Of COCK-FIGHTING.

Herein let us first observe the Choice of a *Cock* of the Game, directed by these four Characters following: That he be

1. Of a strong *Shape*, proud and upright, and for this the *Middle-six'd*, neither too small nor too large, is best, because most matchable, strong and nimble. His *Head* small like a *Sparrow-hawk's*; his *Eye* large and quick; *Back* strong crook'd at the setting on, and coloured as the *Plume* of his *Feathers*; the *Beam of his Leg* very strong, and colour'd as his *Plume*; *Spurs* long, rough, and sharp, hooking inward.

2. Of a good *Colour*, and herein the *Grey*, *Yellow*, or *Red Pyle*, with a black *Breast*, are to be preferred; the *Pyle* rarely good, and the *White* and *Dun* never. A *Scarlet Head* is a *Demonstration* of *Courage*, but a *Pale* and *Wan* of *Faintness*.

3. Of *Courage true*, which you shall observe by his proud, stately, upright standing and walking, and his frequent *Crowing* in his *Pen*.

4. Of a *sharp and ready Heel*, which (in the Opinion of the best *Cock-Masters*) of high *Estimation*; a *sharp heel'd Cock*, though somewhat false is better (as dispatching his *Business* soonest) than a *true Cock* with a *dull Heel*.

For *Breeding*, the best *Season* is from the *Moon's* increase in *February*, to her incase in *March*. The *March Bird* is best. And now first get a *perfect Cock* to a *perfect Hen*, as the best *Breeding*, and see the *Hen* be of an excellent *Complexion* (i. e.) rightly plumed, as *black*, *brown*, *speck'd*, *grey*, *grissel*, or *yellowish*; tufted on her *Crown*, large *Bodied*, well *poked*, and having *Weapons*, are *Demonstrations* of *Excellency* and *Courage*. Observe further

ther her Comportment, if friendly to her Chickens, and revengeful of Injuries from other Hens.

When the Cock and Hen-Chickens, (going 'till now promiscuously one with another) begin to quarrel and peck each other, part them and separate their Walks: And the best for a Fighting Cock, are private and undisturbed Walks, as *Wind-Mills*, *Water-Mills*, *Grange-Houses*, *Park-Lodges*, &c. and their Feeding Place on soft Ground or Boards; and have for his Meat *white Corn*, or *White-bread-Tosts*, steep'd in Drink, or Urine, is good both to scower and cool them. And do not debilitate and debauch his Courage and Strength, by having too many Hens to walk with him; three Hens are enough for one Cock.

If before they be six Months old, any of your Chickens Crow clear and loud, and unseasonable, then to the Pot or Spit with them, they are Cowards; the true Cock is long e'er he gets his Voice, and when he has gotten it, keeps good and judicious Time in Crowing.

Next observe your *Roosting-Perch*, for this makes or mays a Cock; for forming of which, consult the best Cock-Masters Feeding-Pens, and the Perches there, and accordingly proportion your own; take Care that the Ground underneath the Perch be soft, for if it be rough and hard, in leaping down he will hurt his Feet, and make them Gouty and Knotty.

For the *Dieting* and *Ordering* of your Cock for Battle, observe these Rules. Let your Cock be full two Years old, then in the latter End of *August*, take up and pen him, (it being now *Cooking-Time* 'till the End of *May*) and see that he be sound, hard feather'd, and full summed.

The first four Days after Penning, feed him with the Crumb of old *Manchet*, cut into square Bits, thrice a Day, and with the coldest and sweetest Spring-water that can be had. And after you think

Of Cock-fighting.

by this Time he is throughly purged of his Corn, Worms, Gravel, and other coarse Feeding, take him in the Morning out of the Pen, and let him *Sparr* with another *Cock* some time to heat and chase their Bodies, break Fat and Glut, and fit them for Purgation; first having covered their Spurs with Hots of Leather, to hinder their wounding and drawing Blood of one another.

After they have sufficiently *Spurred*, that they pant again, take them up, and remove their Hots, and prepare them for a Sweating-Bout, thus: Take *Butter* and *Rosemary*, finely chop'd, and *White-sugar-candy*, mix'd together; and give them the Quantity of a *Walnut*; which will scower, strengthen, and prolong Breath: Then having (purposely) deep *Straw Baskets*, fill them half way with *Straw*, put in your *Cock*, and cover him with *Straw* to the top; lay the Lid close, and let him stowe 'till the Evening. At Five a Clock take him out, and lick his Head and Eyes with your Tongue, then Pen him, and fill his Trough with Manchet and hot Urine.

After this, take a Gallon of Wheat, and Oat-meal-flower, and with Ale, half a Score Whites of Eggs, and Butter, work it into a stiff Paste, bake it into bread Cakes, and when four Days old, cut it into square Bits.

The Second Day after *Sparring*, bring your *Cock* into a Green Close, and shew him in your Arms a *Dunghill Cock*, then run from him, and allure him thus to follow, suffering him now and then to strike the *Dunghill Cock*, and so chase him up and down for half an Hour, 'till he pants again; and thus heated, carry him home, and scour him with half a Pound of fresh *Butter*, beaten with the Leaves of the *Herb of Grace*, *Hyssip*, and *Rosemary*, to the Consistence of a Salve, and give him the Quantity of a *Walnut*; when *Stowe* and *Feed* him as above. And thus for the first Fortnight, sparr or chase him every other Day.

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Of Cock-fighting.

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The second Fortnight, twice a Week will be enough to chafe or spar your Cock: Observing that you stowe and scour him, proportionable to his Heating.

The third and last Fortnight (for six Weeks is long enough) feed him as before, but do not spar him, but chafe him moderately, twice or thrice, as before; then roll his aforesaid Scouring in *Brown-sugar-candy*, to prevent his being sick; rest him four Days, and then to the Pit.

Now, Gentlemen, Match your Cock carefully, or what you have hitherto done is nothing. And here observe the Length and Strength of Cocks. The Length is thus known: Gripe the Cock by the Waist, and make him shoot out his Legs, and in this Posture compare, *and have your Judgment about you.* The Strength is known by this Maxim, *The largest in the Garth is the strongest Cock.* The Dimension of the Garth is thus known: Gripe the Cock about from the Joynts of your Thumb to the Point of your great Finger, and you will find the Disadvantage, *The weak long Cock is the quickest easiest Riser, and the short strong one the surest Striker.*

Thus being well Match'd, accoutre him for the Pit, clip his Main off close to his Neck, from his Head to his Shoulders. Clip his Tail close to his Rump, the redder it appears the better. His Wings sloping, with sharp Points; scrape smooth, and sharpen his Spurs; leave no Feathers on his Crown; then moisten his Head with Spittle.

The Battle done, search and suck your Cock's Wounds, and wash them well with hot Urine, then give him a Roll of your best Scouring, and stowe him for that Night. If he be swelled, the next Morning suck and bathe his Wounds again, and pounce them with the Powder of the Herb *Robert*, through a fine Bag; give him an Handful of Bread in warm Urine, and stowe him, 'till the Swelling be down. If he be hurt in his Eye, chew a little ground *Ivy*, and spit the Juice in it; which is good for *Flims, Haws,*

Warts,

Warts, &c. Or if he hath *veined* himself in his fight, by narrow Striking, or other cross Blows, when you have found the *Hart*, bind the soft down of Hair to it, will cure it.

When you visit your wounded *Cocks*, a Month or two after you have put them to their Walks, if you find about their Heads any swollen Bunches hard and blackish at one End, then there are unsound Cores undoubtedly in them; therefore open them, and with your Thumb crush them out, suck out the Corruption, and fill the Holes with fresh Butter; and that will infallibly cure them.

Cures for Distempers incident to the Cock or Chick of the Game.

For *Lice*, being most common, I begin with; proceeding from corrupt Meat, and want of Bathing, &c. Take *Pepper* beaten to Powder, mix it with warm Water, and wash them with it.

For the *Roup*; a filthy Swelling on the Rump, and very contagious to the whole Body, the staring and turning back of the Feathers in its Symptom. Pull away the Feathers, open and thrust out the Core, and wash the Sore with Water and Salt, or Brine.

For the *Pip*; visit the Mouth, and examine what hinders your *Cocks*, *Hens*, or *Chicks* feeding, and you'll find a white thin Scale on the Tip of the Tongue, which pull off with your Nails, and rubbing the Tongue with Salt, will cure it.

For the *Flux*; proceeding from eating too moist Meat, give them Pease-Bran scalded, will stop it.

For the *Stoppage of the Belly*, that they cannot mite; anoint their Vents, and give them either small Bits of Bread or Corn, steep'd in Urine of Man.

And now I have one Word of Advice to him that is a Lover (or would be so) of this *Royal Sport*;

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Sport ; and then have done : Come not to the Pit without Money in your Breeches, and a Judgment of Matches ; DONE and DONE is Cock-pit LAW, and if you venture beyond your Pocket, you must look well to it, or you may lose an Eye by the Battle.

Of FOWLING.

THE Ingenious Fowler, like a Politick and Sagacious Warriour, must first furnish and store himself with those several Stratagems and Engines, as suit with the Diversities of Occasion, *i. e.* Time, Place, and Game, or else he cannot expect the Conquest.

And first, of *Nets*, which must be made of the best Pack-Thread ; and for taking great *Fowl*, the Meshes must be large, two Inches at least from point to point, the larger the better, (provided the *Fowl* creep not through) two Fathom deep, and six in length, is the best and most manageable Proportion ; verged with strong Cord on each Side, and extended with long Poles at each End made on purpose. But for small *Water-fowl*, let your Nets be of the smallest and strongest Pack-Thread, the Meshes so big, as for the great *Fowl*, about two or three Foot deep : Line these on both Sides with false Nets, every Mesh a Foot and half square. For the *Day Net*, it must be made of fine Pack-Thread, the Mesh an Inch square, three Fathom long, and one broad, and extended on Poles according to its Length, as aforesaid.

Birdlime is the next, and thus made. Peel the Bark of *Holly* from the Tree at *Midsummer*, fill a Vessel, and put to it running Water ; boil it over the Fire 'till the grey and white Bark rise from the green

Green; take it off the Fire, drain the Water well away, and separate the Barks, and take the Green, lay it on some moist Floor and close Place, and cover it with Weeds; let it lye a Fortnight, and in that Time it will rot, and turn to a filthy slimy Substance: Then put it into a Mortar, beat it well, take it out and wash it at some running Stream 'till the Foulness is gone: Then put it in a close Earthen Pot; let it stand four or five Days, look to its purging, and scum it; when clean put it into another Earthen Pot, and keep it close for Use.

Your *Setting-Dog* must be Elected and Train'd thus: He must be of exquisite Scent, and love naturally to hunt Feathers. The Land Spaniel is best, being of good nimble Size, and courageous Mettle, which you may know by his Breed; being of a good Ranger, &c.

The first Lesson is, to make him *Crouch and lie down* close to the Ground; its done by frequent laying him on the Ground, and crying *Lie close*; upon his doing well, reward him with Bread; and on the contrary chastise him with Words, not Blows.

Next, *To creep to you with his Body and Head close upon the Ground*, by saying, *Come near, Come nearer, Come nearer*, or the like Words; to understand and do it, entice him with shewing him Bread or the like: Thrusting down any rising part of his Body or Head, and roughly threatning him; if he slight that, a good Jerk or two with a Slash of Whipcord will reclaim his Obstinacy.

Repeat his Lessons, and encourage his well doing. And this you may exercise in the Fields as you walk, calling him from his busie Ranging to his Duty. And then teach him to follow you close at the Heels in a Line or String, without straining.

By this time he is a Year old, now (the Season fit) into the Field, and let him range, [obediently.] If he wantonly babble, or causelessly open, correct him by

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by biting soundly the Roots of his Ears, or Lashing. As soon as you find he approaches the Haunt of the Partridge, known by his Whining, and willing, but not daring to open, speak and bid him, *Take heed*: If notwithstanding this he rush in and Spring the Partridge, or opens, and so they escape, correct him severely. Then cast him off to another Haunt of a Covey, and if he mends his Error, and you take any by drawing your Net over them swiftly, reward him with the Heads, Necks and Pinions.

As for the Water Dog, the Instructions above for the Setter will serve; only to fetch and bring by losing a Glove, or the like; keep a strict Subjection in him, and Observance to your Commands.

The longest Barrel is the best Fowling-Piece; five and half, or six Foot long, with an indifferent Bore, under an Harquebuse; and shooting with the Wind, and side-ways, or behind the Fowl, not in their Faces, is to be observed; having your Dog in Command not to stir 'till you have shot.

A Stalking Horse for Shelter, to avoid being seen by shy Fowl, is an old Jade trained on purpose; but this being rare and troublesome, have Recourse to Art, to take Canvas stuff and painted in the Shape of a Horse grazing, and so light, that you may carry him on one Hand (not too big) Others do make them in the Shape of Ox, Cow, for variety; and Stag, Trees, &c.

The Great Fowl, or those who divide the Foot, reside by shallow Rivers Sides, Brooks, and Plashe of Water; and in low and boggy Places, and sedgy, marshy, rotten Grounds. They also delight in the dry Parts of drowned Fens, over-grown with long Reeds, Rushes and Sedges; as likewise in half Fens, drowned Moors, hollow Vales or Downs, Heats, &c. Where obscurely they may lurk under the Shelter of Hedges, Hills, Bushes, &c.

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The lesser, or Web footed Fowl, always haunt the low
drowned Fens, as likewise the main Streams of Ri-
vers not subject to freeze, the deeper and broader the
better ; (tho' of these the *Wild. Goose* and *Barnacle*, if
they cannot sound the Depth, and reach the Ouze,
change their Residence for shallow Places, and de-
light in green Winter Corn, especially if the Lands
Ends have Water about them :) Small Fowl also
frequent hugely little Brooks, Ponds, drowned
Meadows, Pastures, Mores, Plashe, Meres, Loughs,
and Lakes, stored with unfrequented Islands, Shrubs,
&c.

How to take all manner of Fowl or Birds.

For taking the first (I mean the greater Fowl) with
Nets, observe in general this ; Come two Hours be-
fore their feeding Hours, Morning and Evening ;
and spreading your Net on the Ground smooth and
flat, stake the two lower Ends firm, and let the up-
per Ends be extended on the long Cord ; of which
the further End must be fastned to the Ground, three
Fathoms from the Net, the Stake in a direct Line
with the lower Verge of the Net, the other ten or
twelve Fathom long, have in your Hand at the afore-
said Distance, and get some Shelter of Art or Na-
ture, to keep you from the curious and shy Eye
of the Game : having your Net so ready, that the
least Pull may do your Work. strew'd over with Grass
as it lies to hide it. A live *Hern*, or some other
Fowl lately taken, according to what you seek for,
will be requisite for a Stale. And you will have
Sport from the Dawning 'till the Sun is about an
Hour high, but no longer ; and from Sun-set 'till
Twilight ; these being their Feeding Times.

For the small (Water) Fowl. Observe the Even-
ing is best before Sun-set. Stake down your Nets
on each side the River half a Foot within the Water,
the

the lower part so plumb'd as to sink no further : the upper slantwise shoaling against, but not touching by two Foot, the Water, and the Strings which bear up this upper Side, fastened to small yielding Sticks prick'd in the Bank, that as the Fowl strike may ply to the Nets to intangle them. And thus lay your Nets (as many as you please) about twelve score one from another, as the River or Brook will afford : And doubt not your Success. To expedite it however, a Gun fired three or four Times in the Pens and Plashes, a good Distance from your Nets, will affright and post them to your Snares ; and so do at the Rivers, when you lay in the Fens.

Winter Time is the most proper for taking all manner of small Birds, as flocking then promiscuously together, *Larks, Linnets, Chaffinches, Goldfinches, Yellow-hammers, &c.* with this Birdlime : Put to a quarter of a Pound of Birdlime, an Ounce of fresh *Lard*, or *Capon's Grease*, and let it gently melt together over a Fire, but not boil ; then take a quantity of *Wheat-Ears*, as you think your Use shall require, and cut the Straw about a Foot long besides the Ears, and from the Ear lime the Straw six Inches ; the warmer it is the less discernible it will be. Then to the Field adjacent, carrying a Bag of Chaff, and thresh'd Ears, scatter them twenty Yards wide, and stick the lim'd Ears (declining downwards) here and there ; then traverse the Fields, disturb their Haunts, and they will repair to your Snare, and pecking at the Ears, finding they stick to them, mount ; and the lim'd Straws lapping under their Wings, dead their Flight, they cannot be disengaged, but fall, and be taken they must. Do not go near them 'till they rise of their own accord, and let not five or six entangled lead you to spoil your Game, and incur the Loss of five or six Dozen.

Lime-Twigs, is another Expedient for taking of great Fowl, being Rods that are long, small, strait, and

and pliable, the upper Part apt to play to and fro, being besmeared with *Birdlime* warm. Thus to be used, observe the Haunts of the Fowl, have a Stale, (a living Fowl of the same kind you would take) and cross pricking your Rods, one into, and another against the Wind sloping, a Foot distant one from the other; pin down your Stale, some Distance from them, tying some small String to him, to pull and make him flutter to allure the Fowl down. If any be caught, do not run presently upon them, their fluttering will increase your Game. A well taught *Spaniel* is not amiss to retake those that are intangled, and yet flutter away. Thus likewise for the Water, consult the Rivers Depth, and let your Rods be proportionable; what is lim'd of them being above the Water; and a *Mallard*, &c. as a Stale placed here and there, as aforesaid. You need not wait on them, but three times a Day visit them, and see your Game, if you miss any Rods (therefore know their Number) some Fowl entangled is got away with it, into some Hole, &c. and here your *Spaniel* will be serviceable to find him.

For *Small-Birds*, a *Lime-Bush* is best; thus: Cut down a great Bough of a Birch, or Willow-Tree, trim it clean, and lime it handsomely, within four Fingers of the Bottom: Place this Bush so ordered, in some Quick-set, or dead Hedge, in Spring-time: In Harvest or Summer, in Groves, Bushes, Hedges, Fruit-trees, Flaw, and Hewn Lands: In Winter, about Houses, Houells, Barns, Stacks, &c. A Bird-call is here also necessary, or your own industrious Skill in the Notes of several Birds.

And because Gentlemen who have Fish-Ponds, wonder they lose so many Fish, and are apt to censure sometimes undeservedly their Neighbours, when it is the insatiable Hern that is the true Cause, I shall next lay down the best and most approved Way of taking the great Fish-devouring Hern,

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whose Haunt having found, observe this Method to take him. Get three or four small Roaches, or Stale, take a strong Hook, (not too rank) with Wyre to it, and draw the Wyre just within the Skin, from the side of the Gills to the Tail of the said Fish, and he will live four or five Days, (if dead, the Hern will not touch it.) Then have a strong Line, of a dark Green Silk, twisted with Wyre, about three Yards long, tie a round Stone of a Pound to it, and lay three or four such Hooks, but not too deep in the Water, out of the Herns wading; and two or three Nights will answer your Expectation.

The several Ways of taking Pheasants.

You must learn and understand the several Notes of a natural *Pheasant-Call*, and now usefully to apply them. In the Morning just before, or at *Sun-rising*, call them to feed, and so at *Sun-setting*: In the Forenoon and Afternoon, your Note must be to Cluck them together to Brood, or to chide them for straggling, or to notify some Danger at Hand.

Thus skill'd in their Notes, and by the Darkeness, Solitariness, and strong Undergrowth of the Place assured of their Haunts, closely lodge your self, and softly at first Call; lest being near you, a loud Note affright them; and no Reply made, raise your Note gradually to the highest; and if there be a Pheasant in hearing, he will answer you in as loud a Note. Be sure it be Tunable. As soon as you are answered, creep nearer to it; if far off and a single Fowl, as you call, and approach, so will the Pheasant. Having gotten Sight of her on the Ground or Perch, cease calling, and with all Silence possible, spread your Net conveniently, between the Pheasant and you, one end of the Net fastned to the Ground, and the other end hold by a long Line in your Hand by which you may pull together, if strained; then call

call again, and as you see the Pheasant come under your Net, rise and shew your self, and affrighting her, she will mount, and so is taken. Thus if on the contrary you have divers Answers from several Corners of the Coppice, and you keep your Place and not stir, they will come to your Call, and then having a Pair of Nets, spread one on each Side, and do as before. Your Nets must be made of green or black double-twin'd Thread, the Mesh about an Inch square, between Knot and Knot, the whole Net about three Fathom long, and seven Foot broad, verged with strong small Cord on each Side and Ends, to lie hollow and Compass-wise.

The next Way of taking Pheasant-Powts is by driving; thus: Having found the Haunt of an Eye of Pheasants, known by the Barrenness of the Place, Mutings and loose Feathers, then in the little Paths and Ways, like Sheep-Tracks, they have made, place your Nets (taking the Wind with you) a-crofs these Paths hollow, loose, and circularly, the neither Part fix'd to the Ground, and the upper Side hollow, &c. as aforesaid: Then to their Haunt, and there call them together, if scattered; then with a Driver, an Instrument like that of *Cleath-Dressers*, rake gently the Bushes and Boughs about you, the Powts will run, and stop, and listen; then give another rake, and so you will drive them like Sheep into your Nets: Observe in this Secrecy, Time and Leisure, or you spoil your Sport; Secrecy in concealing your self from being seen by them; and Time and Leisure by not being too hasty.

Lastly, for taking Pheasants with the *Lime-Bush* or Rods, order these as I have before prescribed; your Rods about twelve Inches long, and your Bush containing not above eight Twigs, with a pretty long Handle, sharpened to stick in the Ground, or Bushes, Shrubs, &c. and let it be planted as near the

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the Pheasant pearching Branch as may be. Place your Rods on the Ground, near the Bush; for when some are taken below by the Rods, they will scare up the others to get on the Bushes to seek what's become of their Fellows, and there become your Prey themselves.

For taking Partridge.

You must first find the Partridges Haunt. Which is mostly in standing Corn-fields, where they breed; as likewise in Stubble, after the Corn is cut, especially Wheat-Stubble, 'till it is trodden, and then they repair to Barley-Stubble, if fresh; and the Furrows amongst the Clots, Brambles, and long Grass, are sometimes their lurking Places, for Twenty and upward in a Covy. In the Winter in up-land Meadows in the dead Grass, or Fog under Hedges, among Mole-hills, or under the Roots of Trees, &c. Various and uncertain are their Haunts. And tho' some by the Eye, by distinguishing their Colour from the Ground, others by the Ear, by hearing the Cock call earnestly the Hen, and the Hens answering, and chattering with Joy at meeting, do find Partridge; yet the best, easiest, and safest Way of finding them is (as you do the Pheasant) by the Call or Pipe: Notes seasonable, as before prescribed, and they will come near to you, and you may count their Number; and to your Sport.

Surround your Covy, prepare your Nets, and pricking a Stick fast in the Ground, tie the one End to it, and let your Nets fall as you walk briskly round without stopping, and cover the Partridge; then rush in upon them to frighten them, and as they rise they are taken.

For taking them with *Birdlime*. thus: Call first near the Haunt; if answered, stick about your *Lime-straws* a-cross in Ranks at some Distance from you; then call again, and as they approach you, they are

are intercepted by the Straws; and so your Prey. This Way is used most successfully in Stubble-fields, from *August* to *September*: And Rods in Woods, Pastures, &c. as for the Pheasant.

The most pleasant Way of taking Partridge is with a *Setting-Dog*, who having set them, use your Net, and by these Rules and Method, the *Rail*, *Quails*, *Moor-pots*, &c. are to be taken; and are for *Hawks* Flight too. And here I must make an End of the most material part of *Fowling*.

OF FISHING.

IT has been the Method of this whole Treatise, to divide the several distinct Heads of each Recreation into Three Parts, to render the Observations and Rules the more plain and easy, for the Prosecuting the Recreation we treat of.

1. *What* it is we pursue.
2. *Where* and *When* to find that we would delight our selves in.
3. *With what* proper *Mediums* or Measures we may obtain the desired Effects of our Endeavours therein.

First then, *What* we pursue is Fish, distinguish'd according to their sundry Kinds, by these following Names.

The *Barbil*, *Bream*, *Bleak*, *Bull-head* or *Miller's-shumb*; *Chevin*, *Char*, *Chumb*, *Carp*; *Dace*, *Dart*; *Eel*; *Flounder*; *Grayling*, *Gudgeon*, *Guiniad*; *Loach*; *Minnaw*; *Pope* or *Pike*, *Pearch*; *Rud*, *Rough*; *Stickle-bag* or *Banffle*, *Salmon*, *Shad*, *Swart*; *Tench*, *Trotch*, *Trout*, *Thwait*, and *Umber*. All these Alphabetically thus named, are the different Sorts of Fish, in taking which the Angler commonly exercises his Art: We come next, *Where* to find them.

I. To

I. To know the Haunts and Resorts of Fish, in which they are to be usually found, is the most Material Thing the Angler ought to be instructed in, lest he vainly prepare *how to take them*, and preposterously seek *where to find* that he prepar'd for. To prevent which, you are first to understand. That as the Season of the Year is, so Fish change their Places: In *Summer*, some keep near the Top, others, the bottom of the Waters. In *Winter*, all Fish in general Resort to deep Waters. But more particularly, The *Barbel*, *Roch*, *Dace* and *Ruff*, cover most sandy, gravelly Ground, the deepest part of the River, and the Shadows of Trees.

Bream, *Pike* and *Chubb* delight in a Clay, and Ouzie Ground: The *Bream* chooseth the middle of the River, in a gentle, not too rapid Stream: The *Pike* preferreth still Waters, full of Fry, and absconding himself amongst *Bull-Rushes*, *Water-Docks*, or under *Bushes*, that under these Shelters he may more securely surprize and seize his Prey: The *Chub* too chooseth the same Ground, large Rivers and Streams, and is rarely destitute of some Tree to cover and shade him.

Carp, *Tench* and *Eel*, frequent foul, muddy, still Waters. The greatest *Eels* lurk under Stumps, or Roots; the smallest ones are found in all sorts of Rivers or Soils: The *Carp* is for the deepest, stillest part of Pond or River, and so is the *Tench*, and both delight in green Weeds.

Pearch delighteth in gentle Streams of a reasonable Depth, not too shallow; close by a hollow Bank is their Sanctuary.

Gudgeon covers Sandy, Gravelly, Gentle Streams, and smaller Rivers; not so much abounding in Brooks. He bites best in Spring, till they spawn, and a little after till *Wasp* time.

The *Salmon* delights in large swift Rivers, which ebb and flow; and are there plentifully to be found:

As likewise Rocky and Weedy Rivers. But in the latter end of the Year he is to be found high up in the Country, in swift and violent Cataracts, coming thither to spawn.

The *Trout* loves small swift purling Brooks or Rivers, that run upon Stones or Gravel, and in the swiftest, deepest Part of them, getting behind some Stone-block, and there feeds. He delights in a Point of a River where the Water comes whirling like the Eddy, to catch what the Stream brings down, especially if he has the Shade of a Tree. He hugely delights to lurk under some hollow Bank or Stone; seldom among Weeds.

Shad, Thwait, Plaice, Peel, Mullet, Suant, and Flounder, covet chiefly to be in or near the Salt or Brackish Waters, which ebb and flow: The latter viz. the *Flounder*, have been taken in fresh Rivers as coveting Sand and Gravel, deep gentle Streams near Banks, &c.

Lastly, the *Umber* affects Marly, Clay Ground, clear and swift Streams, far from the Sea; the greatest Plenty of these Fish is found in *Darby-shire* and *Stafford-shire*.

Thus much for the Haunts of Fish: I come next to know when is the most seasonable time to catch them; which before I speak to, let him that would become a compleat Angler, take this Rule, That he observe narrowly what Pond or River soever he Fisheth in, whether it be slimy, muddy, stony, or gravelly, whether of a swift or slow Motion; and likewise that he know the Nature of each Fish, and what Baits are most proper for every kind: Not to let his Knowledge be circumscribed to one or two particular Rivers, whither he is invited to Angling, and take his Observations by the Vicinity of his House; but to let his Knowledge be general, and consequently his Sport will be so too. His Ignorance otherwise will oblige him to be a Spectator of another

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another River, when his Excellency is confin'd to that only experienced one in or near his own Parilh or House. But to proceed :

II. To understand the best *Time when* to Angle in, We must first consider Affirmatively, when most Seasonable : Or, 2. Negatively, when Unseasonable.

1. Seasonable Angling is, when the Weather is calm, serene, and clear ; tho' the Cool cloudy Weather in Summer is to be preferred, provided the Wind blow not too boistrouly, to hinder your easie Guiding your Tools ; in the hottest Months the cooler the better.

2. When a violent Shower hath disturbed the Water and mudded it, then with a red Worm, Angle in the Stream at the Ground.

3. A little before Fish spawn, when they repair to gravelly Fords, to rub and loosen their full Bel-lies ; they bite freely.

4. From Sun-Rising, 'till Eight of the Clock in the Morning, and from Four in the Afternoon 'till Night, for Carp and Tench. In June and July, Carps shew themselves on the very rim of the Water, then fish with a Lob-worm, as you would with a natural Fly. But be sure to keep out of Sight.

5. In March, April, and September, and all Winter, when the Air is clear, serene, and warm. And after a Shower of Rain, which hath only beaten the Gnats and Flies into the River, without muddying. The two first mention'd Months with May and part of June, are most proper for the Fly ; Nine in the Morning, and Three o'Clock in the Afternoon, is the best Time ; as likewise, when the Gnats play much in a warm Evening.

6. In a Cloudy and Windy Day, after a Moon-shine clear Night, for the Brightness of the Night (thro' fear) making them abstain from Feeding, and the Gloominess of the Day emboldening and rendering them

them (through Hunger) sharp, and eager upon Food, they bite then freely.

7 Lastly, at the opening of *Milldams* or *Sluices* you will find *Trouts*, &c. come forth seeking Food, brought down by the Water. We come next to demonstrate the Time not proper, *i. e.*

2. *Unseasonable* Angling, in short, is, when the Earth is parched and scorched with vehement Heat and Drought; benumbed and frozen with Cold, Frost and Snow, or refrigerated with Spring Hoar-frosts; or blasted with the sharp, bitter, nipping North or East Winds: Or, when blustering *Boreas* disorders your well guiding your Tackling, or the *Sheep shearers Washings* gluttet the Fish, and anticipated your Bait; when the withdrawing of your Sport foretels a Storm, and advises you to some shelter; or lastly, when the Night proves Dark and Cloudy, you need not trouble your self the next Day, 'tis to no Purpose, &c.

III. For providing *Sticks*, the best Time is the Winter *Solstice*, when the Sap is in the Roots of Trees, and their Leaves gone. It is improper after *January*, the Sap then ascending into the Trunk, and expanding it self over all the Branches; See that your Sticks be *Tapet-grown*, and your Tops of the best *Ground-Hazle* that can be had, smooth, slender and strait, of an Ell long, pliant and bending; and yet of a strength, that a reasonable Jerk cannot break it, but it will return to its first Straitness, lest otherwise you endanger your Line. Keep them two full Years before you use them; having preserved them from Warm-eating or Rotten, by thrice a Year rubbing, and chafing them well with Butter (if sweet or Linseed or Sallet-Oil; and if bored, Oil poured into the Holes, and bathed four and twenty Hours in it, and then thrown out again, will exceedingly preserve them.

Food, The Line, to make it neat, handsome, and strong, twist the Hair you make it of *even*, having seen if the Hair be of an equal Bigness; then steep your Line in Water, to see if the Hairs shrink, if so, you must twist them over again. The Colour of the Hair is best of *Sorrel*, *White*, and *Grey*; *Sorrel* for muddy boggy Rivers, and the two last for clear Waters. Nor is the *Pale watry-green* contemptible, died thus; Take a Pint of strong *Ale*, half a Pound of *Soot*, a little of the Juice of *Walnut Leaves*, and *Allum*; boil these together in a Pipkin half an Hour, take it off, and when 'tis cold, put in your Hair. In making your Line of Hair, mix not Silk; but either all Hair or all Silk; as likewise distinguish the Line for the Ground Angle, and that for the Fly-Rod, the last must be stronger than the first; in that for the Artificial Fly, making the uppermost Link twenty Hairs long, less in the next, and so less till you come to the Fly. Lastly, at each End of your Line make a Loop, (called a *Bout*) the one larger, to fasten to, and take it from the Top of your Rod; and the other, lesser, to hang your Hook-line one.

Your Hook must be long in the Shank, something round in Compass; the Point strait and even, and bending in the Shank. Set on your Hook with strong small Silk, laying your Hair on the Inside of the Hook.

Your *Float* challenges divers Ways of making. Some using *Muscovy Duck-Quills* for still Waters Others the best sound Cork, without Flaws or Holes bored through with a hot Iron, and a Quill of a fit Proportion put into it; then pared into a pyramidal Form, or in the Fashion of a small Pear, to what Bigness you please, and ground smooth with a Grind-Stone or Pumice; this is best for strong Streams.

In fine, To plumb the Ground, get a Carbine Bullet bored through, and in a strong Twist hanged on your Hook or Rod. To sharpen your Hook, carry a little Whetstone. To carry your several Utensils without incommoding your Tackle, have several Partitions of Parchment. And in short the Ingenious Angler will not be unprovided of his Bobb and Palmer; his Boxes of all Sizes for his Hooks, Corks, Silk, Thread, Flies, Lead, &c. his Linning and Woollen Bait-bags; His splinted Oster light Pannier; and lastly, his Landing-Hook, with a Screw at the End, to screw it into the Socket of a Pole, and stick'd into the Fish, to draw it to Land: To which Socket, a Hook to cut up the Weeds, and another to pull out Wood may be fasten'd.

Baits are branched into three Kinds.

First, the *Life-Baits*, which are all kind of Worms, Redworm, Maggot, Dors, Frogs, Bobb, Brown flies, Grasshoppers, Hornets, Wasps, Bees, Snails, small Roaches, Bleak, Gudgeon, or Leaches.

Secondly, *Artificial living Baits*, of Flies of all sorts and shapes, made about your Hooks with Silk and Feathers, at all Times seasonable, especially in blustering Weather.

Lastly, *Dead Baits*, Pastes of all Makings, Wasps dried or undried, clotted Sheep's-Blood, Cheese, Bramble-berries, Corn, Seed, Cherries, &c. The two first good in May, June and July, the two next in April; and the last in the Fall of the Leaf.

Of Flies.

Of *Natural Flies*, there are innumerable, and therefore it cannot be expected I can particularize all; but some of their Names I shall nominate, viz. The Dun-fly, Red-fly, May-fly; Tawny-fly, Moor-fly, Shall-fly, Flay-fly, Winesfly, Cloudy or Blackish fly, Canker-flies, Bear-flies, Caterpillers, and thousands more, differing according to the Soils, Rivers or Plants.

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Artificial Flies, are made by the ingenious Angler, according to Art, in Shape, Colour, and Proportion, like the natural Fly, of *Fur, Wool, Silk, Feathers, &c.* To delineate which, I must confess my self not so accurate and skillful a Painter, nor can any Pencil-drawing illustrate their various Colours so, as to direct their Artificial Counterfeit: Nature will help him in this by Observation, curiously flourishing their several orient and bright Colours, after which they take their Names, as before said: And therefore to furnish your self with both Natural and Artificial Flies, repair in the Morning to the River, and with a Rod beat the Bushes that hang over the Water, and take your Choice.

1. Observe to Angle with the Artificial Fly in Rivers disturbed somewhat by Rain, or in a Cloudy Day, the Wind blowing gently: If the Wind be not so high, but you may well guide your Tackle, in plain Deeps is to be found the best Fish, and best Sport: If small Wind breeze, in swift Streams is best Angling: Be sure to keep your Fly in perpetual slow Motion; and observe that the Weather suit the Colour of your Fly, as the light Colour'd in a clear Day, the Darkish in a dark, &c. As likewise according to the Waters Complexions, have your Fly suitable.

2. Let your Line be twice as long as your Rod: Keep as far as you can from the Water-side, the Sun on your Back: In casting your Fly, let that fall first; your Line not touching the Water.

3. Have a nimble Eye, and active quick Hand to strike presently upon the Rising of the Fish, lest, finding his Mistake, he spew out the Hook.

4. In slow Rivers cast your Fly cross them, let it sink a little, draw it back gently, without breaking or circling the Water; let the Fly float with the Current, and you will not fail of excellent Sport.

5. Observe to let the Wings of your *Salmon Flie* to be one behind another, whether two or four, and they and the Tail long, and of the finest, gaudiest Colours you can choose.

Lastly, In clear Rivers, a small Fly with slender Wings is best, and in muddiest Rivers a Fly of a more than ordinary large Body.

Thus much for Flies, I come next to that I call'd *Dead Baits*, and shall begin with the several ways of making Pastes.

Of Pastes.

1. Beat in a Mortar the Leg of a young Coney (vulgarly called the *Almond*) or of a Whelp or Catling, and a Quantity of Virgins Wax and Sheeps Suet, till they are incorporated, and temper them with clarified Honey into Paste.

2. *Sheeps-blood*, Cheese, fine *Manchet* and clarified Honey tempered.

3. *Sheep's Kidney-suet*, Cheese, fine Flower, with clarified Honey tempered.

4. *Cherries*, *Sheep's-blood*, Saffron, and fine *Manchet* made into a Paste.

5. Beat into a Paste the fattest old Cheese, the strongest Rennet can be got, fine *Wheat-flower* and *Annis-seed Water*: If for a Chub you make the Paste, put a little rusty Bacon.

Lastly, *Mutton-Kidney-suet*, and *Turmerick* reduced to a fine Powder, the fattest old Cheese, and strongest Rennet, wrought to a Paste, adding *Turmerick*, till the Paste be of a curious Yellow; and is excellent for *Chewin*.

Anoint your Bait with this Confection: Take the Oil of *Aspray*, *Coculus India*, and *Assa-fatida* beaten, and mix with it as much Life-Honey; then dissolve them in the Oil of *Polypody*, and keep it in a close Glass for your use. And that your Paste may not wash off your Hook, beat Cotton-Wool or Flax into it.

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Of keeping Baits.

The *Red-Worm* must be kept in a Bag of Red Cloath, with a Handful of chopt *Fennel* mixt with half so much fresh, black, and fertile Mould, as will scower and preserve them: All other Worms, with the Leaves of Trees they are bred on, renewing them often in a Day. Only the *Cad-bait*, *Bob*, and *Canker*, &c. must be kept in the same Things you find them.

The great *White Maggots*, keep them in Sheep's Tal'ow, or little bits of a Beast's Liver; and to scower them, hang them warm in a Bag of Blanketing, with Sand.

The *Fogs* and *Grashoppers*, in wet Moss and long Grass, frequently moistened; and when used, the Legs of the first, and the Wing of the other must be cut close off.

The *Flies*, use them as you take them. Only, the *Wasps*, *Hornets*, and *Humble-Bee*, must be dry'd in an Oven, their Heads dipp'd in Sheeps Blood, and dry'd again, may be kept in a Box for use.

And now thus equipt, let us walk to the River's Side.

To begin then with the *Barbel*. The best Time for Angling for this Fish is at the latter End of *May*, *June*, *July*, and Beginning of *August*, in his Haunts aforementioned; and the best Bait (omitting others) is the well scoured *Lob-Worm* (being of a curious cleanly Palate as well as Shape) or Cheese steep'd in Flour or two in clarified Honey: He is a subtle Fish, extraordinary strong, and dogged to be dealt with, and therefore be sure to have your Rod and Line strong and long, or you may endanger to break it.

For the *Bream*. The most seasonable Time to Angle is, from *St. James-Tide* 'till *Bartholomew-Tide*. He spawneth in *June* or Beginning of *July*; is easily

easily taken, as falling on his side after one or two gentle Turns, and so drawn easily to Land. The best Bait for him (most delightful to him) is the *Red-worm* (found in Commons and Chalky Grounds after Rain) at the Root of a great Dock, wrapt up in a round Clue. He loves also Paste, Flag-worms, Wasps, Green-flies, Butterflies, and a Grass-hopper without Legs.

Bait your Ground the Night before with Gross-ground Malt, boiled and strained, and then in the Morning with the *Red-worm*: bait your Hook, and plumb your Ground within half an Inch, Fish.

The *Bleak*, an eager Fish, is caught with all sorts of Worms bred on Trees or Herbs, also with *Flies*, *Cad-Bait*, *Bobs*, *Paste*, *Sheeps-blood*, *white Snails*, *Wasps*, *Gnats*, &c. In a warm clear Day the small Fly at the rim of the Water is best; in a Cloudy Day, *Gentles* or *Cad-Baits*, two-Foot under the Water.

The *Bull-head* or *Miller's-Thumb* being Childrens Recreation, I shall speak little of them, only being serviceable for Baits, I shall only say he is easily taken with a small Worm, being lazy and simple, and will swallow any thing; and the *Mimow*, *Loach* and *Banstickle* being of the same Diet, I place here too.

The *Chewin* loveth all sorts of Worms, *Flies*, *Cheese*, *Grain* and *Blackworms*, their Bellies being slit, that the white may be seen; and very much delighted in the Pith of an Oxes Back, the tough outward Skin being carefully taken off, without breaking the inward tender Skin. In the Morning early, angle for *Chewins* with a *Snail*; in the Heat of the Day with some other Bait; in the Afternoon with the Fly; the great Moth with a great Head, yellow Body, and whitish Wings usually found in Gardens about the Evening: The larger the *Chewin*, the sooner taken; loving his Bait larger, and variety on a Hook.

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The *Char* is a *Lancashire* Fish, found in a *Mere*, call'd *Winander-Mere* in that Country, the largest in *England*.

For the *Chub*, called by some a *Chevin*, by others a *Villain*. Bait your Hook with a *Grass-hopper*, find the Hole where he lies, accompanied in a hot Day, with twenty or more, floating almost on the very Superficies of the Water; choose which you think best, and fairest, and drop your Hook some two Foot before him, and he will bite at it greedily, and cannot break hold with his *Leather Mouth*; let him play and tire, lest you break your Line. If you cannot get a *Grass-hopper*, then any Worm or Fly you will. In cold Weather, fish for him near the bottom, and the *Humble-Bee* is the best Bait. Some appropriate Baits according to the Month, but I shall omit that; the *Chub* (being best and in his Prime in the Winter) a Paste made of Cheese and Turpentine is the only Bait to take him.

The *Carp* is subtle and full of Policy, will never bite in Cold Weather, but in Hot you cannot be too early or too late. In *March* he seldom refuseth the *Red-worm*, in *June* the *Cad-bait*, and the three next Months the *Grass-hopper*; Pastes that are sweet, of which I have spoken before, are very delightful to *Carp*s: And especially if you bait your Ground two or three Days before you Angle, with Bellers of coarse Paste, *Chickens Guts*, *Garbage*, &c. *Ginsler*, anointed, and a Piece of *Scarlet* dipt in Honey, put them on the Hook, is an approved way.

The *Dace*, *Dace*, *Rudd* and *Roeach*, being much of a kind, and feeding, I shall put together, and are easily taken with small Worms, *Bob*s, *Cad baits*, *Elies*, *Sheeps-Blood*, all sorts of Worms, bred on Trees or Herbs, Paste, *Wasps*, *Gnats*, *Lipbarries*, &c. The Heads of the *Wasps*, being dipt in Blood is good for *Dace* and *Dart*; as is likewise the *Ant-fly*.

The Eel takes great *Red-worms*, *Beef*, *Wasps*, *Guts* of *Fowl* or *Fish*, *Menow* or small *Roaches* are good Bait for Night-Hooks; the Hooks being in the Mouth of the *Fish*. Now, because this is very delightful to most, I shall prescribe Three ways of taking them, as are most full of Pleasure. The first way is called *Sniggling* or *Brogging* for Eels; thus, Take a strong Line and Hook, baited with a *Lob* or *Garden-worm*, and observing where Eels lurk in the Day-time, with a Stick forked at the Top, gently put your Bait into the Hole, and if there be any Eels there, you will not fail of a Bire, of as large as can be had, but pull not too hard, least you spoil all. The second is called *Bobbing*, which is thus done; take some large well scoured *Lobs*, and with a Needle run some strong twisted Silk through them, from end to end, so many as are enough to wrap about a Board near a dozen times: tye them fast with the two ends of the Silk to hang in so many Hanks; then fasten all to a strong Cord, and a handful above the Worms fasten a Plumber of three Quarters of a Pound, and your Cord to a strong Pole, and in muddy Waters you may Fish, and find the Eels tug lustily, and when you think they have swallowed them, draw up your Line, and ashore with them. Lastly, the *Eel-spear* made with Four Teeth, jagged on both sides, stricken into the Mud, on the bottom of a River, and if you chance to strike where they lie, you infallibly take.

There is likewise an assured way of taking Eels, thus done; Take some Bottles of Hay, mixt with green *Ostrer* or *Willow*, bait them with Sheeps Guts, or other Beasts Garbage, sink them down in the middle to the bottom of your Pond, or by the Bank-sides, having fastned a Cord to the Bottles, that you may twitch them up at your Pleasure; and all the best Eels will resort to them.

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The *Flounder*, *Shad*, *Thwait*, *Suag*, and *Mullet*, are taken with *Red-Worms* of all Sorts, *Wasps* and *Gentles*.

For the *Grayling*, you must head your Hook upon the Shank, with a slender and narrow Plate of Lead, that the Bait (a large Grasshopper) may the more easily come over it; and at the Point put a *Cad-bait*, and keep the Bait in continual Motion: Not forgetting to pull off the Grasshoppers Wings.

The *Gudgeon* takes the smallest *Red-Worm*, *Wasps*, *Gentles*, and *Cad-baits*. When you fish for him, stir up the Sand or Gravel with a Pole, which will make them gather thither, and bite more eagerly.

The *Guiniad* I shall remit speaking to, only mentioning it in courie, being no where found but in a Place called *Pemble-More*, in which Place they abound, as the River *Dee* does with *Salmon*.

The *Pope* or *Ruff* is excellent for a young Angler, bites greedily, and Quantities may be taken by baiting the Ground with fat Earth, and your Hook with small *Red-Worms*.

The *Pike* loveth all sorts of Baits (unless the Fly) *Gudgeon*, *Dace*, *Roaches*, and *Loaches*, and young *Frogs* in Summer-time; of which the yellowest is best.

The *Pearch* taketh all sorts of Earth-Worms, especially the *Lob-worm* and *Brandling*, well scowered, *Bobs*, *Oak-Worms*, *Doris*, *Gentles*, *Colowert-Worms*, *Wasps*, *Cad-baits*, and *Menow*, or a little *Frog*, the Hook being fastned thro' the Skin of his Leg, towards the upper Part of it. Be sure you give the *Pearch* Time enough to pouch his Bait before you strike.

The *Salmon* is taken best with *Lob-Worms*, scented with the Oil of Ivy Berries, or the Oil of *Polypody* of the Oak, mixt with *Turpentine*, or the well scoured Garden-Worm, is an excellent Bait. The *Salmon* bites best in *May*, *June*, and *July*, at Three a

Glock

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Clock in the Afternoon, if the Water be clear, a little Wind stirring especially near the Sea.

The *Tench* is a great lover of large Red-worms first dipt in Tar. As also all sorts of Paste made up with strong scented Oils, or Tar, or a Paste made up of Brown Bread and Honey. He will bite too at a *Cad-worm*, *Lob-worm*, *Flag-worm*, *Green gentles*, *Cad-bait*, *Marsh worm*, or soft boild *Bread grain*, &c.

The *Torcoth* being before-mention'd, I only let you know, that he is only found in the Pool *Limpers* in *Cornarvanshire*; and leave you to the *Welchmens* Description, both of him and his Bait.

The *Trout* is fattest, and in his Prime in *May*, and is caught with all sorts of Worms, especially *Brand-lings*, commonly found in an old *Dung-hill*, *Cow-dung*, *Hogs-dung*, or *Tanners-bark*: Also with *Flies* Natural and Artificial, with young *Frogs*, *Minow*, *March*, *Dock* or *Flag-worms*; all sorts of *Cad-bait*, *Dors*, *Bohr*, *Balmers*, *Gentles*, *Wasps*, *Hornets*, &c. and with the *Caterpillar*, used according to the Rule before prescribed for the *Grayling*. Lastly,

The *Umber* is taken as the *Trout* just now mention'd; and therefore now to your Sport: To assist your well affecting, which, I have but this to add; Cast into your Haunts where you use to Fish, once in four or five Days soft boiled Corn (or oftner for *Carp* and *Tench*) also Garbages, Beasts Livers, chopt Worms, Grains steep'd in Blood, to attract them to the Place; and to keep them together, throw in half a handful of Grains or ground Malt; but in a Stream cast it before your Hook, that floating towards you, you may draw the Fish thither.

Sundry curious Baits for Fish.

These grow on the Cuccow-Pints or Wake Robin and are found in dry Ditches, overgrown with Brambles; they are about the Bigness of Pease, and in *July* and *August* are of a lovely transparent Red, and are

are excellent Baits for Roaches and Chubs; and for the first, two will serve, but for the latter, you may put four or five at a Time on the Hook.

Oat-Cakes with Cheese.

Beat these together into a Paste, the Cheese being new, and stick them together with a little Honey, letting the Paste lie all Night in a wet Linnen-Cloth, then fit it up in Baits, and cover your Hook with it.

To keep Baits for the Pike or Night-Hooks.

For this take a smal' Roach, Dace, Loach, Minnow, Smelt, small Trout or Perch, cutting off the Finns on the Back, or small Eels well scoured in Wheat Bran, which will keep them better and longer, taking away the Slime and watery Substance that causes them to rot or decay the sooner.

Fishes Eyes.

Take out the Eyes of such Fish as you catch, and put three or four of them on a Hook, and they will prove an excellent Bait for most sorts of Fish.

Fat Bacon.

Cut this in little small long Snips, and especially at Snap, it is exceeding good to take a Chub or Pike, from the latter end of August to the beginning of April.

The Pith of a Back-bone of a Sheep.

Take out the Pith that runs through the Back-bone, and take off the Tough outward Skin, and leave the thin tender white Skin on, and bait with about half an Inch of it, and it takes a Chevin to Admiration.

Grain,

Grain, Wheat, Ma't.

Bruise either of these finely, fry them in Honey, make them up into Pastes with Oil of Peter; and either in Winter or Summer they take a Chub, Roach, Dace, or Bleak.

How to bring Fish, if any in the Pond or River, to the Place you desire.

Boil clean Barly in Water 'till it bursts, with Licorice, add a little Mummy; and some Honey, and beat them together in a Mortar into a stiff Passe, and boil about the Quantity of a Wall-nut of this Passe with a Quart of Barley, 'till it grows glutenous, and then lay it for a Ground-Bait, and the Fish will flock about it from all Parts.

To make Worms for Baits come out of the Ground.

Boil an Ounce of Verdigrease in a Quart of strong Vinegar, and sprinkle a little in Places where you suspect Worms are, and they will crawl out of the Ground.

Another Approved Bait.

Take the Fat of a Heron, Mummy and Galbanum, of each Two Drams, Scent them with a Grain of Musk, and make them up with Two Ounces of *Aqua-vite*, stir them over a gentle Fire in an Earthen Vessel, 'till they become thick, and with this rub the Hook and End of the Line, and the Scent of it will draw the Fish to it; you must also have at the same Time a proper Bait on your Hook for such Fish as are in the Place you Angle.

The Artificial Cad, or Cad-Bait.

Make the Body of yellow Bees-Wax, and Head of black Dubin and black Silk, or you may make the Body

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Body of yellow washed Leather, Shammy or Buff, and the head all of black Silk, and this is an incomparable Bait for Trout, Salmon or Smelts, and those that are natural, are most excellent Baits for Trout, Grayling, Salmon, Tench, Roach, Chub, Dace, Carp, Tench, Ruff, Bream and Bleak; but then you must Fish with it in clear Water only.

Rules and Considerations about Baits in general.

Fish in general take all such Baits freely, as Nature at that Season affords in or near the Places where you Angle; for being used to them, they are not afraid of any Deceit, but take them as their common Food. And for Flies in this Case, in a Morning or Evening, when you go to Angle, beat the Bushes about the Rivers or Ponds, and such Flies as you rouse there, Fish with, either Natural or imitate them by Art; as also see what Worms or other Insects fit for Baits stick on the Leaves, Grass, or are in the Water; and in this Observation you cannot miss of good Sport; and when you have struck gently the back-way, draw a little, and be not too hasty to take up before the Fish has had her play, and spent her Strength, lest she break your Tackle. If your Fish be large, you must use your Landing Net.

To take Fish in the Night with a Light.

This is an admirable way to supply you with a suddain Dish, viz. Take a Glass in the form of an Urinal very deep, put as much Clay in the bottom of it as will sink the Mouth of it within an Inch of the Water, floating on pieces of Cork, tied about the Neck to keep it steadily upright; then place a Candle in it, by sticking it in the Clay-socket, anointing the out-side of the Glass with Oil of Asper. This Light will shine a great way in a still Water, so that the Fish being amazed at so unusual a Sight, will come out of their Holes about it, and be

be detained with the Scent of the Oil so long, that with a Hoop-Net you may take great Store of them.

Flies proper for every Month.

For February, little red brow Palmer Flies, the plain Hackle, the Silver Hackle, the Gold Hackle, the great Dun, the great blew Dun, the dark brown.

For March, the little whirling Dun, the early bright Brown, the whitish Dun, the Thorn-tree Fly, the blue Dun, the little black Gnat, the little bright Brown.

For April, the small bright Brown, the little dark Brown, the great whirling Dun, the Violet Fly, the yellow Dun, the Horse-flesh Fly.

For May, the Dun-cout, the Green-drake, the Stone-fly, the black May-fly, the little yellow May-fly, the Gray-drake, the Camlet-fly, the Turkey-fly, the yellow Palmer, the black Flat fly, the light brown, the little Dun, the white Gnat, the Peacock-fly, the Cow-lady, the Cow-turd fly.

For June, from the first to the 24th the Green Drake and Stone-fly, the Owl-fly, the Barm-fly, the Purple Hackle, the purple Gold-Hackle, the Flesh-fly, the little Flesh-fly, the Peacock-fly, the Ant-fly, the brown Gnat, the little black Gnat, the green Grass-hopper, the Dun Grass-hopper, the Brown Hackle.

For July, the Badger-fly, the Orange-fly, the little white Dun, the Wasp-fly, the Black Hackle, the Shel-fly, the black brown Dun.

For August, the late Ant-fly, the Fern-fly, the white Hackle, the Harry-long-legs.

For September, the Cammel brown Fly, the late Bidger-fly.

For October, the same Flies that were used in March.

The best Time to Angle in.

1. If in the hot Months, cloudy Weather is best, when a small Gale stirs the Water.
2. When the Floods have carried away the Filth that sudden Showers incumbred the Water withal, and the River and Pond retains its usual Bounds, looking of a whitish Colour.
3. When a violent Shower has troubled or muddied the River, or a little before the Fish spawn, at what Time they come into the sandy Ground to loosen their Bellies.
4. After Rains, when the Rivers keep their Bounds, yet rise and run swiftly, for then they seek Shelter in Creeks and little Rivulets running into the River.
5. Fish for Carp and Tench early, that is, before Sun rise, till Eight in the Morning, and from Four in the Afternoon till after Sun-set. In *March*, the beginning of *April*, and the latter End of *September* and all Winter, when there are no great Frosts, the Fish bite in the warm of the Day, the Wind being still; but in Summer Months Morning and Evening best.
6. Fish rise best at the Fly after the Shower has muddied or clouded the Waters, and Fish with Flies in generally, *March*, *April*, *May*, and the beginning of *June*, is the best for Trout, you may Angle in a clear Star-light Night, for they are then roaving about for Prey; he bites best in muddy Water, and the best Time of Fishing for him is from 8 to 10 in the Morning, and from 3 till 5 in the Afternoon.
7. The Salmon Fishery is best in *May*, *June*, *July*, and *August*, from three in the Afternoon till Sun-set, and in the Morning as before.
8. The Barble bites best early in the Morning, till Ten or Eleven in *May*, *June*, *July*, and the beginning of *August*.
9. The

9. The Perch and Roft bites best all Day in cool cloudy Weather.

10. The Carp and Tench bite early and late in the still Parts of the River; *June, July, and August*; as likewise do the Chevin, whose chief Bait is white Snails and small Lampreys.

11. The Bream bites from Sun rise 'till Nine or Ten in the Morning, in muddy Water, especially the Wind blowing hard; for the most part keeping in the Middle of the Pond or River in *May, June, July, and August*.

12. Angle for the Pike in clear Water, when it is stirred by a gentle Gale in *July, August, September, and October*; and then he bites best about Three in the Afternoon; but all the Day in Winter, and in *April, May, and the Beginning of June*, early in the Morning, and late at Evening.

13. The Roach and Dace bite all the Day long at the top of the Water at Flies Natural and Artificial, also at Grasshoppers, and all sorts of Worms, if the Water be shady.

14. The Gudgeon bites best in *April*, 'till she has Spawned in *May* or if the Weather be cold, 'till Walp Time, and at the end of the Year all Day long, near to a gentle Stream. Observe when you Angle for her to stir and rake the Ground, and the Bait will be taken the better.

15. The Flounder in *April* bites all Day, *May, June, and July*, especially in swift Streams, yet he will bite, tho' so not freely in a still Deep.

Of Fish Ponds.

Grounds most fit and proper to be cast into a Pond, are those which are Marshy, or Boggy, or full of Springs, unfit for Grazing, or to be put to any profitable use besides. Of these the last, full of Springs, will yield the best Water; that which is Marshy

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Marshy will feed Fish; and what is Boggy is best for a Defence against Thieves.

First draw by small Trenches all the Springs into one Place, and so drain the rest of the Ground; then mark out the Head of your Pond, and make it the highest part of the Ground in the Eye, tho' it be the lowest in a level; cut the Trench of your Floodgate so, that when the Water is let out, it may have a swift Fall: On each Side of which Trench drive in Stakes of Oak, Ash, or Elm, six Foot long, and six Inches square; place these in Rows near four Foot distance, as broad and wide from the Floodgate as you intend the Head of your Pond shall go: Dig it in as big and large a Compass as the Ground will permit; throw your Earth among the said Stakes, and ram it down hard till you have covered the Stakes: Drive in as many new ones next the first Stakes, and ram more Earth above them, with Stakes above Stakes till the Head-sides be of a convenient Height: Taking Care that the Inside of your Banks be smooth, even, hard and strong, that the Current of the Water may not wear off the Earth.

Having thus digged Eight Foot deep, that so it may carry six Foot Water, pave the Bottom and Banks of the Pond with Sods of Plot-Grass, laying them close together, pin them down with Stakes and Windings: This Grass is a great Feeder of Fish, and grows naturally under Water. Stake to the Bottom of one Side of the Pond Bays and Brush-Wood Faggots, into which the Fish may cast their Spawn. Lay Sods upon Sods to nourish and breed Eels.

The Pond being made, let in Water, and thus store it; put Carp, Bream, and Tench by themselves; Pike, Perch, Eel, and Tench (the Fishes Physician) by themselves; for Food of the greater Fishes, put Store of Roach, Dace, Loach, and Menow; and lastly, to one Melter put three Spawners, and in three

three Years the encrease will be great, and in five Years with Difficulty be destroy'd.

In three Years *See your Pond*; which you must continue to do, for the Roach will increase in such abundance, that eating up the sweet Food, will make other Fish, as Carps, &c. be very lean: Therefore every Year view your Pond, and observe if any such Fry appears, thin them.

To make Carps grow large, &c.

About *April*, when your Pond is low, rake the sides where the Water is fallen with an Iron Rake, *low Hay-seeds* there, rake it well; and at the End of Summer you shall have store of Grass: In *Winter* the Water will over-top the Grass, and being Water enough for them, the Carps will resort to the sides, and feed briskly, and grow Fat: Thus do every Summer, 'till you see your Pond, and no River-Carp can surpass them.



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